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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:06; Search time 43.3077 Seconds

(without alignments)

71.766 Million cell updates/sec

Title: US-09-787-443A-17

Perfect score: 11

Sequence: 1 AKKEKPNKPND 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1586107 seqs, 282547505 residues

Word size:

Total number of hits satisfying chosen parameters:

22883

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: A Geneseq 29Jan04:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: genesegp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	ક				
	Query				
Score	Match	Length	DB	ID	Description
 11	100.0	11	 3	AAY88545	Aay88545 NCAM Iq1
11	100.0	11	5	ABG69345	Abg69345 Human neu
4	36.4	11	2	AAR49995	Aar49995 Mouse OSF
4	36.4	11	3	AAY88528	Aay88528 NCAM Igl
4	36.4	11	3	AAY88561	Aay88561 NCAM Ig1
4	36.4	11	4	ABP14934	Abp14934 HIV A03 s
4	36.4	11	4	ABP21472	Abp21472 HIV A03 m
4	36.4	11	4	ABP11867	Abp11867 HIV A01 s
4	36.4	11	4	ABP13905	Abp13905 HIV A02 s
	11 11 4 4 4 4 4 4	Query Score Match 11 100.0 11 100.0 4 36.4 4 36.4 4 36.4 4 36.4 4 36.4 4 36.4 4 36.4	Query Score Match Length 11 100.0 11 11 100.0 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11 4 36.4 11	Query Score Match Length DB 11 100.0 11 3 11 100.0 11 5 4 36.4 11 2 4 36.4 11 3 4 36.4 11 3 4 36.4 11 4 4 36.4 11 4 4 36.4 11 4	Query Score Match Length DB ID 11 100.0 11 3 AAY88545 11 100.0 11 5 ABG69345 4 36.4 11 2 AAR49995 4 36.4 11 3 AAY88528 4 36.4 11 3 AAY88561 4 36.4 11 4 ABP14934 4 36.4 11 4 ABP14934 4 36.4 11 4 ABP11867

1.0	4	26 1	11	4	3BD12006	7h-12006 HITH 702 -
10	4	36.4	11	4	ABP13906	Abp13906 HIV A02 s
11	4	36.4	11	4	ABP13907	Abp13907 HIV A02 s
12	4	36.4	11	4	ABP16339	Abp16339 HIV A24 s
13	4	36.4	11	4	ABP19267	Abp19267 HIV B62 s
14	4	36.4	11	4	ABP19169	Abp19169 HIV B62 s
15	4	36.4	11	4	ABP23397	Abp23397 HIV All m
16	4	36.4	11	4	ABP19088	Abp19088 HIV B62 s
17	4	36.4	11	4	ABP21292	Abp21292 HIV A03 m
				5		
18	4	36.4	11		ABB74590	Abb74590 Transcrip
19	4	36.4	11	5	ABB74473	Abb74473 DNA repai
20	4	36.4	11	5	ABG69330	Abg69330 Human neu
21	4	36.4	11	7	ADC56785	Adc56785 Peptide (
22	3	27.3	11	1	AAP70892	Aap70892 Sequence
23	3	27.3	11	1	AAP82338	Aap82338 Compound
24	3	27.3	11	1	AAP82813	Aap82813 Peptide f
25	3	27.3	11	2	AAR08092	Aar08092 Antifreez
26	3	27.3	11	2	AAR27233	Aar27233 Thrombin
27	3	27.3	11	2	AAR36909	Aar36909 Insulin-l
	3			2		
28		27.3	11		AAR35381	Aar35381 Amphiphil
29	3	27.3	11	2	AAR43417	Aar43417 La/SSb ep
30	3	27.3	11	2	AAR33973	Aar33973 Amphiphil
31	3	27.3	11	2	AAR31163	Aar31163 C-termina
32	3	27.3	11	2	AAR34249	Aar34249 Mutant HT
33	3	27.3	11	2	AAR34247	Aar34247 Mutant HT
34	3	27.3	11	2	AAR34255	Aar34255 Mutant HT
35	3	27.3	11	2	AAR34257	Aar34257 Mutant HT
36	3	27.3	11	2	AAR34256	Aar34256 Mutant HT
37	3	27.3	11	2	AAR34254	Aar34254 Mutant HT
38	3	27.3	11	2	AAR34248	Aar34248 Mutant HT
				2		
39	3	27.3	11		AAR34253	Aar34253 Mutant HT
40	3	27.3	11	2	AAR34246	Aar34246 HTLV-I re
41	3	27.3	11	2	AAR41495	Aar41495 TNF inhib
42	3	27.3	11	2	AAR43603	Aar43603 Peptide d
43	3	27.3	11	2	AAR44562	Aar44562 Encoded b
44	3	27.3	11	2	AAR44561	Aar44561 Encoded b
45	3	27.3	11	2	AAR45132	Aar45132 Amphiphil
46	3	27.3	11	2	AAR32183	Aar32183 Ranakinin
47	3	27.3	11	2	AAR55163	Aar55163 Fragment
48	3	27.3	11	2	AAR67115	Aar67115 Anti-infl
49	3	27.3	11	2	AAR67036	Aar67036 Chemotact
50	3	27.3	11	2	AAR50563	Aar50563 Amphiphil
51	3	27.3	11	2	AAR55987	Aar55987 Ion chann
52	3	27.3	11	2	AAR59065	Aar59065 Cancer tr
53	3	27.3	11	2	AAR71762	Aar71762 Neurotens
54	3	27.3	11	2	AAR71761	Aar71761 Neurotens
55	3	27.3	11	2	AAR56948	Aar56948 Peptide w
56	3	27.3	11	2	AAR50448	Aar50448 Amphiphil
57	3	27.3	11	2	AAR82716	Aar82716 Shrimp tr
58	3	27.3	11	2	AAW21220	Aaw21220 Farnesyl
59	3	27.3	11	2	AAR76917	Aar76917 Thymosin
	3					Aar78790 Racl (127
60		27.3	11	2	AAR78790	· · · · · · · · · · · · · · · · · · ·
61	3	27.3	11	2	AAR86397	Aar86397 Soybean-d
62	3	27.3	11	2	AAR90259	Aar90259 Ion-chann
63	3	27.3	11	2	AAR91788	Aar91788 Ion-chann
64	3	27.3	11	2	AAR91787	Aar91787 Ion-chann
65	3	27.3	11	2	AAR92106	Aar92106 Human RIZ
66	3	27.3	11	2	AAR92105	Aar92105 Rat RIZ c

67	3	27.3	11	2	AAR85318	Aar85318	Human ret
68	3	27.3	11	2	AAW18499	Aaw18499	Amino-ter
69	3	27.3	11	2	AAW24438	Aaw24438	Nucleic a
70	3	27.3	11	2	AAW35836	Aaw35836	Soymetide
71	3	27.3	11	2	AAW09909	Aaw09909	_
72	3	27.3	11	2	AAW04613	Aaw04613	Physalaem
73	3	27.3	11	2	AAW35540	Aaw35540	Biotin-la
74	3	27.3	11	2	AAW35543	Aaw35543	Immunizat
75	3	27.3	11	2	AAW83278	Aaw83278	NPF motif
76	3	27.3	11	2	AAW29629	Aaw29629	Peptide G
77	3	27.3	11	2	AAW29630	Aaw29630	Peptide G
78	3	27.3	11	2	AAW62116	Aaw62116	Human MDM
79	3	27.3	11	2	AAW66523	Aaw66523	Amphiphil
80	3	27.3	11	2	AAW48280	Aaw48280	Tyrosylpe
81	3	27.3	11	2	AAW65447	Aaw65447	Lebetin d
82	3	27.3	11	2	AAY45430	Aay45430	Immunogen
83	3	27.3	11	2	AAY03664	Aay03664	Amino aci
84	3	27.3	11	2	AAY06247	Aay06247	Staphyloc
85	3	27.3	11	2	AAY33736	Aay33736	Thrombin
86	3	27.3	11	2	AAW67760	Aaw67760	Platelet
87	3	27.3	11	2	AAW67757	Aaw67757	Platelet
88	3	27.3	11	2	AAW81004	Aaw81004	S. cerevi
89	3	27.3	11	2	AAY10761		Peptide u
90	3	27.3	11	2	AAY10750		Peptide u
91	3	27.3	11	2	AAY10762	Aay10762	Peptide u
92	3	27.3	11	3	AAB23898	Aab23898	Artificia
93	3	27.3	11	3	AAY88564	Aay88564	NCAM Ig1
94	3	27.3	11	3	AAY88548	Aay88548	NCAM Igl
95	3	27.3	11	3	AAY88558	Aay88558	NCAM Ig1
96	3	27.3	11	3	AAB12031	Aab12031	Cr2 motif
97	3	27.3	11	3	AAB12105	Aab12105	Rat RIZ p
98	3	27.3	11	3	AAB32196	Aab32196	Peptide m
99	3	27.3	11	3	AAY51238	Aay51238	C. roseus
100	3	27.3	11	3	AAB30392	Aab30392	Vaccinia

ALIGNMENTS

```
RESULT 1
AAY88545
JD
     AAY88545 standard; peptide; 11 AA.
XX
AC
     AAY88545;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
     NCAM Igl binding peptide #17.
XX
ΚW
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
XX
OS
     Synthetic.
XX
```

```
WO200018801-A2.
PN
XX
     06-APR-2000.
PD
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
PR
     29-SEP-1998;
                    98DK-00001232.
PR
     29-APR-1999;
                    99DK-00000592.
XX
     (RONN/) RONN L C B.
PΑ
PΑ
     (BOCK/) BOCK E.
PΑ
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
PΑ
     (OSTE/) OSTERGAARD S.
PΑ
     (JENS/) JENSEN P H.
PΑ
     (POUL/) POULSEN F M.
     (SORO/) SOROKA V.
PA,
     (RALE/) RALETS I.
PA
PΑ
     (BERE/) BEREZIN V.
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PI
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PΙ
XX
```

Compositions that bind neural cell adhesion molecules useful for treating disorders of the nervous system and muscles e.g. Alzheimer's and Parkinson's diseases.

Example 4; Page 25; 119pp; English.

WPI; 2000-293111/25.

DR XX

PT

PT PT

XX PS

XX

CC

XX

Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. NCAM is found in three forms, two of which are transmembrane forms, while the third is attached via a lipid anchor to the cell membrane. All three NCAM forms have an extracellular structure consisting five immunoglobulin domains (Iq domains). The Iq domains are numbered 1 to 5 from the Nterminal. The present sequence represents a peptide which binds to the NCAM Igl domain. The peptide can be used in a compound which binds to NCAM-Iq1/Iq2 domains, and is capable of stimulating or promoting neurite outgrowth from NCAM presenting cells, and is also capable of promoting the proliferation of NCAM presenting cells. The compound may be used in the treatment of normal, degenerated or damaged NCAM presenting cells. The compound may in particular be used to treat diseases of the central and peripheral nervous systems such as post operative nerve damage, traumatic nerve damage, impaired myelination of nerve fibres, conditions resulting from a stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis, nerve degeneration associated with diabetes mellitus, disorders affecting the circadian clock or neuro-muscular transmission and schizophrenia. Conditions affecting the muscles may also be treated with the compound, such as conditions associated with impaired function of neuromuscular connections (e.g. genetic or traumatic shock or traumatic atrophic muscle disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also be treated using the compound. The compound is used in a prosthetic nerve quide, and also to stimulate the ability to learn, and to stimulate the memory of a subject

```
SQ
     Sequence 11 AA;
                          100.0%; Score 11; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 2.3e-05;
  Best Local Similarity
            11; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKKEKPNKPND 11
Qу
              1 AKKEKPNKPND 11
Db
RESULT 2
ABG69345
ID
     ABG69345 standard; peptide; 11 AA.
XX
AC
     ABG69345;
XX
DT
     21-OCT-2002 (first entry)
XX
DE
     Human neural cell adhesion molecule (NCAM) peptide #17.
XX
KW
     Human; neural cell adhesion molecule; NCAM; heart muscle cell survival;
     acute myocardial infarction; central nervous system disorder; stroke;
KW
     peripheral nervous system disorder; postoperative nerve damage;
KW
     traumatic nerve damage; spinal cord injury; nerve fibre; schizophrenia;
KW
     postischaemic damage; multiinfarct dementia; multiple sclerosis;
KW
     nerve degeneration; diabetes mellitus; neuro-muscular degeneration;
KW
     Alzheimer's disease; Parkinson's disease;
KW
KW
     Huntington's disease. atrophic muscle disorder; gonad degeneration;
ΚW
     nephrosis.
XX
     Homo sapiens.
OS
XX
     W0200247719-A2.
PN
XX
     20-JUN-2002.
PD
XX
PF
     12-DEC-2001; 2001WO-DK000822.
XX
     12-DEC-2000; 2000DK-00001863.
PR
XX
     (ENKA-) ENKAM PHARM AS.
PA
XX
PΙ
     Bock E, Berezin V, Kohler LB;
XX
DR
     WPI; 2002-583473/62.
XX
     Use of a compound comprising a peptide of neural cell adhesion molecule,
PT
PT
     in the preparation of medicament for preventing death of cells presenting
     NCAM or NCAM ligand and treating central nervous system diseases.
PT
XX
PS
     Disclosure; Page 16; 57pp; English.
XX
     The invention relates to use of a compound (I) comprising a peptide which
CC
     comprises at least 5 contiguous amino acid residues of a sequence of the
CC
CC
     neural cell adhesion molecule (NCAM), its fragment, variant or its mimic,
```

for the preparation of a medicament for preventing death of cells

CC

```
presenting the NCAM or an NCAM ligand. (I) is useful in the preparation
CC
     of a medicament for preventing death of cells presenting the NCAM or an
CC
     NCAM ligand. The medicament is for the stimulation of the survival of
CC
     heart muscle cells, such as survival after acute myocardial infarction.
CC
     The medicament is for the treatment of diseases or conditions of the
CC
     central and peripheral nervous system, such as postoperative nerve
CC
     damage, traumatic nerve damage, e.g. resulting from spinal cord injury,
CC
     impaired myelination of nerve fibres, postischaemic damage, e.g.
CC
     resulting from a stroke, multiinfarct dementia, multiple sclerosis, nerve
CC
     degeneration associated with diabetes mellitus, neuro-muscular
CC
     degeneration, schizophrenia, Alzheimer's disease, Parkinson's disease and
CC
CC
     Huntington's disease. The medicament is for the treatment of diseases or
     conditions of the muscles including conditions with impaired function of
CC
     neuro-muscular connections, such as genetic or traumatic atrophic muscle
CC
     disorders, and for the treatment of diseases of conditions of various
CC
     organs, such as degenerative conditions of the gonads, pancreas (e.g.
CC
CC
     diabetes mellitus type I and II) and kidney (e.g. nephrosis). ABG69329-
CC
     ABG69352 represent human NCAM peptides of the invention
XX
SO
     Sequence 11 AA;
                          100.0%;
                                   Score 11; DB 5; Length 11;
  Query Match
                                   Pred. No. 2.3e-05;
  Best Local Similarity
                          100.0%;
                                                                              0;
            11; Conservative
                                 0; Mismatches
                                                   0;
                                                       Indels
                                                                  0;
                                                                     Gaps
            1 AKKEKPNKPND 11
Qу
              1 AKKEKPNKPND 11
Db
RESULT 3
AAR49995
     AAR49995 standard; protein; 11 AA.
XX
AC
     AAR49995;
XX
DT
     25-MAR-2003
                  (revised)
DT
     23-SEP-1994
                 (first entry)
XX
     Mouse OSF-5 antigenic peptide 116-126.
DE
XX
     Mouse OSF-5; bone-related carboxypeptidase-like protein; growth factor;
KW
     adhesion molecule; osteogenesis; bone induction;
KW
     bone metabolism disorder; osteoporosis; osteopetrosis; Paget's disease;
KW
ΚW
     antigen; immunogen; detection.
XX
OS
     Synthetic.
XX
     EP588118-A2.
PN
XX
PD
     23-MAR-1994.
XX
PF
     25-AUG-1993;
                    93EP-00113604.
XX
                    92JP-00230029.
PR
     28-AUG-1992;
                    92JP-00324033.
PR
     03-DEC-1992;
XX
```

```
PΑ
     (FARH ) HOECHST JAPAN LTD.
     (HMRI ) HOECHST MARION ROUSSELL LTD.
PA
XX
     Kawai S, Takeshita S, Okazaki M, Amann E;
PΙ
XX
     WPI; 1994-093794/12.
DR
XX
     New bone-related carboxy:peptidase OSF-5 - used to obtain prods. for the
PT
     diagnosis and treatment of bone metabolic diseases, e.g. osteoporosis, or
РΤ
     Paget's disease.
PT
XX
     Example 5; Page 6; 26pp; English.
PS
XX
CC
     OSF-5 is a bone-specific carboxypeptidase which acts as an adhesion
CC
     molecule or growth factor; it takes part in osteogenesis at the site of
CC
     bone induction. OSF-5 can be used to treat bone metabolic diseases, e.g.
CC
     osteoporosis, Paget's disease, osteomalacia, hyperostosis or
CC
     osteopetrosis. To prepare anti-OSF-5 antibodies, five peptides (see
     AAR49995-R49999) corresponding to regions of the full-length mouse OSF-5
CC
     sequence (AAR49994) were synthesised. Antisera raised against the
CC
     peptides could be used to immunohistochemically search for the presence
CC
CC
     of OSF-5 in systemic slices from newborn mice and to detect expression of
     OSF-5 in E.coli, yeast and animal cells. (Updated on 25-MAR-2003 to
CC
CC
     correct PN field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%;
  Best Local Similarity
                                  Pred. No. 6.9e+02;
            4; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            3 KEKP 6
Qy
              +111
            3 KEKP 6
Db
RESULT 4
AAY88528
     AAY88528 standard; peptide; 11 AA.
ID
XX
AC
    AAY88528;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
     NCAM Iq1 binding peptide D3.
XX
KW
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
XX
OS
     Synthetic.
XX
     WO200018801-A2.
PN
XX
PD
     06-APR-2000.
```

```
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
₽R
     29-SEP-1998;
                    98DK-00001232.
                    99DK-00000592.
PR
     29-APR-1999;
XX
PA
     (RONN/) RONN L C B.
PA
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
     (OLSE/) OLSEN M.
PA
PΑ
     (OSTE/) OSTERGAARD S.
PA
     (JENS/) JENSEN P H.
PΑ
     (POUL/) POULSEN F M.
PΑ
     (SORO/) SOROKA V.
PA
     (RALE/) RALETS I.
PA
     (BERE/) BEREZIN V.
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
XX
DR
     WPI; 2000-293111/25.
XX
     Compositions that bind neural cell adhesion molecules useful for treating
PΤ
PT
     disorders of the nervous system and muscles e.q. Alzheimer's and
PT
     Parkinson's diseases.
XX
     Claim 20; Page 82; 119pp; English.
PS
XX
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
CC
     domains (Iq domains). The Iq domains are numbered 1 to 5 from the N-
CC
     terminal. The present sequence represents a peptide which binds to the
CC
     NCAM Iql domain. The peptide can be used in a compound which binds to
     NCAM-Iq1/Iq2 domains, and is capable of stimulating or promoting neurite
CC
CC
     outgrowth from NCAM presenting cells, and is also capable of promoting
     the proliferation of NCAM presenting cells. The compound may be used in
CC
     the treatment of normal, degenerated or damaged NCAM presenting cells.
CC
     The compound may in particular be used to treat diseases of the central
CC
CC
     and peripheral nervous systems such as post operative nerve damage,
     traumatic nerve damage, impaired myelination of nerve fibres, conditions
CC
CC
     resulting from a stroke, Parkinson's disease, Alzheimer's disease,
CC
     dementias, sclerosis, nerve degeneration associated with diabetes
     mellitus, disorders affecting the circadian clock or neuro-muscular
CC
CC
     transmission and schizophrenia. Conditions affecting the muscles may also
CC
     be treated with the compound, such as conditions associated with impaired
CC
     function of neuromuscular connections (e.g. genetic or traumatic shock or
CC
     traumatic atrophic muscle disorders). Conditions of the gonads, pancreas
CC
     (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart,
     liver and bowel may also be treated using the compound. The compound is
CC
CC
     used in a prosthetic nerve guide, and also to stimulate the ability to
CC
     learn, and to stimulate the memory of a subject
XX
     Sequence 11 AA;
SQ
```

```
Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
             4; Conservative
                                 0; Mismatches
  Matches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKKE 4
Qy
              1111
            1 AKKE 4
Db
RESULT 5
AAY88561
     AAY88561 standard; peptide; 11 AA.
XX
AC
     AAY88561;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
     NCAM Ig1 binding peptide D3 used as a control peptide.
XX
KW
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
OS
     Synthetic.
XX
     WO200018801-A2.
PN
XX
PD
     06-APR-2000.
XX
                    99WO-DK000500.
PF
     23-SEP-1999;
XX
PR
     29-SEP-1998;
                    98DK-00001232.
                    99DK-00000592.
PR
     29-APR-1999;
XX
     (RONN/) RONN L C B.
PA
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
PA
     (OLSE/) OLSEN M.
PA
     (OSTE/) OSTERGAARD S.
PA
PA
     (JENS/) JENSEN P H.
     (POUL/) POULSEN F M.
PA
     (SORO/) SOROKA V.
PA
     (RALE/) RALETS I.
PΑ
PΆ
     (BERE/) BEREZIN V.
XX
PΙ
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S,
                                                            Jensen PH;
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PI
XX
     WPI; 2000-293111/25.
DR
XX
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
PT
     Parkinson's diseases.
PT
XX
PS
     Example 5; Fig 7; 119pp; English.
XX
```

```
CC
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-
CC
     terminal. The invention relates to a compound containing a peptide which
CC
CC
     binds to the NCAM Iq1 domain. The compound binds to NCAM-Iq1/Iq2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
     presenting cells, and is also capable of promoting the proliferation of
CC
     NCAM presenting cells. The present sequence represents a control peptide
CC
     used in the identification of those binding peptides which can be used in
CC
     the compound. The compound may be used in the treatment of normal,
CC
     degenerated or damaged NCAM presenting cells. The compound may in
CC
     particular be used to treat diseases of the central and peripheral
CC
     nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
CC
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
CC
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
     be treated using the compound. The compound is used in a prosthetic nerve
CC
CC
     guide, and also to stimulate the ability to learn, and to stimulate the
CC
     memory of a subject
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 3; Length 11;
                          100.0%; Pred. No. 6.9e+02;
  Best Local Similarity
             4; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
            1 AKKE 4
Qy
              1111
Db
            1 AKKE 4
RESULT 6
ABP14934
     ABP14934 standard; peptide; 11 AA.
ID
XX
AC
     ABP14934;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                  (first entry)
XX
DE
     HIV A03 super motif pol peptide #308.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
     WO200124810-A1.
PN
```

```
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
                    99US-00412863.
PR
     05-OCT-1999;
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
              Sidney J, Southwood S, Livingston BD, Chesnut R;
PΙ
     Sette A,
PI
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 174; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
CC
     antiqens is directed largely toward variable regions of the antigen,
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.9e+02;
  Matches
             4; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            2 KKEK 5
Qу
              1111
            8 KKEK 11
Db
RESULT 7
ABP21472
     ABP21472 standard; peptide; 11 AA.
XX
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AC
     ABP21472;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                  (first entry)
XX
     HIV A03 motif pol peptide #467.
DE
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
KW
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
                          Southwood S, Livingston BD, Chesnut R;
PΙ
     Sette A,
               Sidney J,
                          Kubo RT, Grey HM;
PΙ
     Baker DM, Celis E,
XX
     WPI; 2001-354887/37.
DR
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 309; 448pp; English.
XX
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
     allowing for immune escape due to mutations. The groups for inclusion in
CC
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
     represent peptide sequences used in the exemplification of the present
CC
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
```

Sequence 11 AA;

XX SQ

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100.0%; Pred. No. 6.9e+02;
  Best Local Similarity
  Matches
             4; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 KKEK 5
Qу
              1111
Db
            8 KKEK 11
RESULT 8
ABP11867
     ABP11867 standard; peptide; 11 AA.
XX
AC
     ABP11867;
XX
DТ
     11-SEP-2003
                 (revised)
DT
     15-JUL-2002
                 (first entry)
XX
     HIV A01 super motif pol peptide #139.
DE
XX
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
KW
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
     12-APR-2001.
PD
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
     (EPIM-) EPIMMUNE INC.
PA
XX
                          Southwood S, Livingston BD, Chesnut R;
PΙ
     Sette A, Sidney J,
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PΤ
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 112; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
CC
     allowing for immune escape due to mutations. The groups for inclusion in
```

36.4%; Score 4; DB 4; Length 11;

Query Match

```
CC
     an group-based vaccine may be selected from conserved regions of viral or
     tumour-associated antigens, which therefore reduces the likelihood of
CC
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
  Matches
                                 0; Mismatches
                                                                              0;
             4; Conservative
                                                    0; Indels
                                                                  0; Gaps
            2 KKEK 5
Qу
              I \cup I
Db
            3 KKEK 6
RESULT 9
ABP13905
     ABP13905 standard; peptide; 11 AA.
ID
XX
AC
     ABP13905;
XX
DT
     11-SEP-2003 (revised)
DT
     15-JUL-2002
                 (first entry)
XX
DΕ
     HIV A02 super motif pol peptide #820.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
     WO200124810-A1.
PN
XX
PD
     12-APR-2001.
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
PΙ
                          Southwood S, Livingston BD, Chesnut R;
               Sidney J,
PI
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
```

```
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 153; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
CC
     antigens is directed largely toward variable regions of the antigen,
     allowing for immune escape due to mutations. The groups for inclusion in
CC
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%;
                                  Pred. No. 6.9e+02;
  Matches
             4; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 KKEK 5
Qу
              1111
            7 KKEK 10
Db
RESULT 10
ABP13906
     ABP13906 standard; peptide; 11 AA.
XX
AC
     ABP13906;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                  (first entry)
XX
DE
     HIV A02 super motif pol peptide #821.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
os
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
```

```
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
     05-OCT-1999;
                    99US-00412863.
PR
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
PI
              Sidney J,
                         Southwood S, Livingston BD, Chesnut R;
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 153; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
     group-based vaccines has several advantages over traditional vaccines,
CC
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
     allowing for immune escape due to mutations. The groups for inclusion in
CC
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
  Matches
             4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 KKEK 5
Qу
              \mathbf{H}
            5 KKEK 8
RESULT 11
ABP13907
ID
     ABP13907 standard; peptide; 11 AA.
XX
AC
     ABP13907;
```

```
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                  (first entry)
XX
DΕ
     HIV A02 super motif pol peptide #822.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; qaq; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
PI
     Sette A,
               Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
PI
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
     WPI; 2001-354887/37.
DR
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
     Claim 32; Page 153; 448pp; English.
PS
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
     compositions. There is evidence that the immune response to whole
CC
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
```

Sequence 11 AA;

XX SO

```
Query Match
                          36.4%; Score 4; DB 4; Length 11;
                          100.0%; Pred. No. 6.9e+02;
  Best Local Similarity
  Matches
             4; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 KKEK 5
QУ
              IIII
Db
            4 KKEK 7
RESULT 12
ABP16339
ID
     ABP16339 standard; peptide; 11 AA.
XX
AC
     ABP16339;
XX
DT
     11-SEP-2003
                 (revised)
DT
     15-JUL-2002
                 (first entry)
XX
DE
     HIV A24 super motif pol peptide #519.
XX
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
     WO200124810-A1.
PN
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
     (EPIM-) EPIMMUNE INC.
PA
XX
PΙ
     Sette A, Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
    WPI; 2001-354887/37.
XX
PT
    Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
    peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 203; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
    human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
CC
    ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
    be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
    particularly when compared to the use of whole antigens in vaccine
CC
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
```

```
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
     combine selected groups (CTL and HTL), and further, to modify the
CC
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
             4; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            2 KKEK 5
Qу
              \square
Db
            3 KKEK 6
RESULT 13
ABP19267
     ABP19267 standard; peptide; 11 AA.
XX
AC
     ABP19267;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002 (first entry)
XX
     HIV B62 super motif pol peptide #273.
DE
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; qaq; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antiqen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
     12-APR-2001.
PD
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PΙ
                          Southwood S, Livingston BD, Chesnut R;
     Sette A, Sidney J,
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
```

```
XX
PS
     Claim 32; Page 263; 448pp; English.
XX
     The present invention describes a composition (I) comprising a prepared
CC
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
     an group-based vaccine may be selected from conserved regions of viral or
CC
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
  Matches
             4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
Qу
            2 KKEK 5
              IIII
Db
            7 KKEK 10
RESULT 14
ABP19169
ID
     ABP19169 standard; peptide; 11 AA.
XX
AC
     ABP19169;
XX
DT
     11-SEP-2003 (revised)
DT
     15-JUL-2002
                  (first entry)
XX
DE
     HIV B62 super motif pol peptide #175.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
```

```
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
     05-OCT-1999;
PR
                    99US-00412863.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
                          Southwood S, Livingston BD,
PI
     Sette A, Sidney J,
                                                         Chesnut R:
     Baker DM, Celis E,
PΙ
                          Kubo RT,
                                    Grev HM;
XX
DR
     WPI; 2001-354887/37.
XX
РΤ
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
РΤ
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 261; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
     represent peptide sequences used in the exemplification of the present
CC
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
  Matches
             4; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            2 KKEK 5
              \Pi\Pi\Pi
            3 KKEK 6
Db
RESULT 15
ABP23397
ID
     ABP23397 standard; peptide; 11 AA.
XX
AC
     ABP23397;
XX
```

```
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                  (first entry)
XX
     HIV All motif pol peptide #339.
DE
XX
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
     05-OCT-1999;
                    99US-00412863.
PR
XX
     (EPIM-) EPIMMUNE INC.
PA
XX
                         Southwood S, Livingston BD, Chesnut R;
PI
     Sette A, Sidney J,
PΙ
     Baker DM, Celis E,
                         Kubo RT, Grey HM;
XX
     WPI; 2001-354887/37.
DR
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 348; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
     compositions. There is evidence that the immune response to whole
CC
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
```

```
Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
             4; Conservative
                                 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            2 KKEK 5
Qу
              \Pi\Pi\Pi
            8 KKEK 11
Db
RESULT 16
ABP19088
     ABP19088 standard; peptide; 11 AA.
XX
AC
     ABP19088;
XX
DΤ
     11-SEP-2003
                 (revised)
DT
     15-JUL-2002 (first entry)
XX
DE
     HIV B62 super motif pol peptide #94.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
     Human immunodeficiency virus 1.
OS
XX
     WO200124810-A1.
PN
XX
     12-APR-2001.
PD
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PΙ
     Sette A, Sidney J, Southwood S, Livingston BD, Chesnut R;
PI
     Baker DM, Celis E, Kubo RT, Grey HM;
XX
     WPI; 2001-354887/37.
DR
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 260; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
```

```
escape mutants. Furthermore, immunosuppressive groups that may be present
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
CC
     additional advantage of an group-based vaccine approach is the ability to
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
     represent peptide sequences used in the exemplification of the present
CC
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
             4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                     Gaps
                                                                              0;
            2 KKEK 5
Qу
              +1+1
Db
            3 KKEK 6
RESULT 17
ABP21292
ID
     ABP21292 standard; peptide; 11 AA.
XX
AC
    ABP21292;
XX
DT
     11-SEP-2003 (revised)
DT
     15-JUL-2002 (first entry)
XX
DE
    HIV A03 motif pol peptide #287.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antiqen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
     12-APR-2001.
PD
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
ΡI
               Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
     Sette A,
                         Kubo RT, Grey HM;
PΙ
     Baker DM, Celis E,
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
     peptide groups, useful for vaccinating against HIV-1.
PT
XX
```

CC

```
PS
     Claim 32; Page 305; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
                          100.0%;
  Best Local Similarity
                                   Pred. No. 6.9e+02;
  Matches
                                 0; Mismatches
             4; Conservative
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            2 KKEK 5
Qy
              1111
Db
            4 KKEK 7
RESULT 18
ABB74590
ID
     ABB74590 standard; peptide; 11 AA.
XX
AC
     ABB74590;
XX
     18-APR-2002 (first entry)
DT
XX
DE
     Transcription factor nuclear localisation signal peptide SEQ ID NO:354.
XX
KW
     Fusogenic; nuclear localisation signal; NLS; encapsulation; lipogene;
KW
     liposome; micelle; karyophilic; cytostatic; antitumour; solid tumour;
KW
     peptide-lipid-polynucleotide complex; neoplastic disease; gene therapy;
KW
     breast carcinoma; prostate carcinoma.
XX
OS
     Homo sapiens.
XX
PN
     WO200193836-A2.
XX
PD
     13-DEC-2001.
XX
```

```
PF
     08-JUN-2001; 2001WO-US018657.
XX
     09-JUN-2000; 2000US-0210925P.
PR
XX
     (BOUL/) BOULIKAS T.
PA
XX
     Boulikas T;
PΙ
XX
     WPI; 2002-164295/21.
DR
XX
PT
     Encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
PT
     nuclear localization signal/fusogenic peptide conjugates into targeted
PT
     liposome complexes.
XX
PS
     Claim 14; Page 76; 107pp; English.
XX
CC
     The present invention describes a method for producing micelles with
CC
     entrapped therapeutic agents. The method comprises: (1) combining
CC
     negatively charged agent with a cationic lipid in a ratio where 30-90 %
CC
     of the negatively charged atoms are neutralised by positive charges on
CC
     lipid molecules to form an electrostatic micelle complex in 20-80 %
CC
     ethanol; and (2) combining the micelle complex of (a) with fusogenic-
CC
     karyophilic peptide conjugates in a 0.0-0.3 ratio, therefore producing
CC
     micelles with entrapped therapeutic agents. Also described is a method
CC
     for delivering a therapeutic agent in vivo, comprising the administration
CC
     of the micelle. ABB74256 to ABB74858 represent specifically claimed
     nuclear localisation signal (NLS) peptides for use in the method as the
CC
     fusogenic-karyophilic peptides. The micelles produced can have cytostatic
CC
CC
     and antitumour activities. The peptide-lipid-polynucleotide complexes
CC
     produced are useful for inhibiting the progression of neoplastic
     diseases. The invention relates to the field of gene therapy and is
CC
CC
     directed toward methods for producing peptide-lipid-polynucleotide
CC
     complexes suitable for delivery of polynucleotides. The encapsulated
     molecules display therapeutic efficacy in eradicating solid tumours
CC
CC
     including but not limited to breast carcinoma or prostate carcinoma.
CC
     ABB74235 to ABB74255 are used in the exemplification of the present
CC
     invention
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
            4; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                              0;
 Matches
                                                                 0; Gaps
Qу
            2 KKEK 5
              +1111
Db
            7 KKEK 10
RESULT 19
ABB74473
     ABB74473 standard; peptide; 11 AA.
ID
XX
AC
    ABB74473;
XX
DT
     18-APR-2002 (first entry)
XX
```

DΕ DNA repair protein nuclear localisation signal peptide SEQ ID NO:237. XX KW Fusogenic; nuclear localisation signal; NLS; encapsulation; lipogene; liposome; micelle; karyophilic; cytostatic; antitumour; solid tumour; KW KW peptide-lipid-polynucleotide complex; neoplastic disease; gene therapy; KW breast carcinoma; prostate carcinoma. XX OS Eukaryota. XX WO200193836-A2. PNXX PD 13-DEC-2001. XX 08-JUN-2001; 2001WO-US018657. PFXX 09-JUN-2000; 2000US-0210925P. PR XX PA(BOUL/) BOULIKAS T. XX PΙ Boulikas T; XX DR WPI; 2002-164295/21. XXPTEncapsulation of plasmid DNA (Lipogenes) and therapeutic agents with PTnuclear localization signal/fusogenic peptide conjugates into targeted PTliposome complexes. XX PSClaim 14; Page 69; 107pp; English. XX CC The present invention describes a method for producing micelles with entrapped therapeutic agents. The method comprises: (1) combining CC CC negatively charged agent with a cationic lipid in a ratio where 30-90 % CC of the negatively charged atoms are neutralised by positive charges on CC lipid molecules to form an electrostatic micelle complex in 20-80 % CC ethanol; and (2) combining the micelle complex of (a) with fusogenickaryophilic peptide conjugates in a 0.0-0.3 ratio, therefore producing CC micelles with entrapped therapeutic agents. Also described is a method CC CC for delivering a therapeutic agent in vivo, comprising the administration CC of the micelle. ABB74256 to ABB74858 represent specifically claimed CC nuclear localisation signal (NLS) peptides for use in the method as the fusogenic-karyophilic peptides. The micelles produced can have cytostatic CC CC and antitumour activities. The peptide-lipid-polynucleotide complexes CC produced are useful for inhibiting the progression of neoplastic diseases. The invention relates to the field of gene therapy and is CC CC directed toward methods for producing peptide-lipid-polynucleotide CC complexes suitable for delivery of polynucleotides. The encapsulated CC molecules display therapeutic efficacy in eradicating solid tumours CC including but not limited to breast carcinoma or prostate carcinoma. CC ABB74235 to ABB74255 are used in the exemplification of the present CC invention XX SQ Sequence 11 AA; Query Match 36.4%; Score 4; DB 5; Length 11; Best Local Similarity 100.0%; Pred. No. 6.9e+02;

0; Mismatches

0; Indels

0; Gaps

0;

4; Conservative

Matches

ABG69330 ID ABG69330 standard; peptide; 11 AA. XX AC ABG69330; XX DT21-OCT-2002 (first entry) XXDE Human neural cell adhesion molecule (NCAM) peptide #2. XX KW Human; neural cell adhesion molecule; NCAM; heart muscle cell survival; acute myocardial infarction; central nervous system disorder; stroke; KW peripheral nervous system disorder; postoperative nerve damage; KW KW traumatic nerve damage; spinal cord injury; nerve fibre; schizophrenia; postischaemic damage; multiinfarct dementia; multiple sclerosis; KW

Alzheimer's disease; Parkinson's disease;

XX OS Homo sapiens.

nephrosis.

KW KW

KW KW

XX PN

XX

XX PF

PA

XX

XX

XX PT

PT

PT

XX PS

XX

CC

CC CC

CC

CC

CC

CC

CC

WO200247719-A2.

PD 20-JUN-2002.

12-DEC-2001; 2001WO-DK000822.

XX PR 12-DEC-2000; 2000DK-00001863.

(ENKA-) ENKAM PHARM AS.

XX

PI Bock E, Berezin V, Kohler LB;

DR WPI; 2002-583473/62.

Use of a compound comprising a peptide of neural cell adhesion molecule, in the preparation of medicament for preventing death of cells presenting NCAM or NCAM ligand and treating central nervous system diseases.

nerve degeneration; diabetes mellitus; neuro-muscular degeneration;

Huntington's disease. atrophic muscle disorder; gonad degeneration;

Claim 26; Page 39; 57pp; English.

The invention relates to use of a compound (I) comprising a peptide which comprises at least 5 contiguous amino acid residues of a sequence of the neural cell adhesion molecule (NCAM), its fragment, variant or its mimic, for the preparation of a medicament for preventing death of cells presenting the NCAM or an NCAM ligand. (I) is useful in the preparation of a medicament for preventing death of cells presenting the NCAM or an NCAM ligand. The medicament is for the stimulation of the survival of heart muscle cells, such as survival after acute myocardial infarction. The medicament is for the treatment of diseases or conditions of the central and peripheral nervous system, such as postoperative nerve

```
CC
     damage, traumatic nerve damage, e.g. resulting from spinal cord injury,
CC
     impaired myelination of nerve fibres, postischaemic damage, e.g.
CC
     resulting from a stroke, multiinfarct dementia, multiple sclerosis, nerve
     degeneration associated with diabetes mellitus, neuro-muscular
CC
     degeneration, schizophrenia, Alzheimer's disease, Parkinson's disease and
CC
     Huntington's disease. The medicament is for the treatment of diseases or
CC
     conditions of the muscles including conditions with impaired function of
CC
CC
     neuro-muscular connections, such as genetic or traumatic atrophic muscle
     disorders, and for the treatment of diseases of conditions of various
CC
     organs, such as degenerative conditions of the gonads, pancreas (e.g.
CC
CC
     diabetes mellitus type I and II) and kidney (e.g. nephrosis). ABG69329-
CC
     ABG69352 represent human NCAM peptides of the invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.9e+02;
  Matches
             4; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKKE 4
Qу
              1111
            1 AKKE 4
Db
RESULT 21
ADC56785
     ADC56785 standard; peptide; 11 AA.
TD
XX
AC
     ADC56785;
XX
DT
     18-DEC-2003 (first entry)
XX
DE
     Peptide (SeqID 5) derived from the human HMG-2 protein.
XX
KW
     antibody; high mobility group protein-1; HMG-1; HMG-2; peptide immunogen;
KW
     MD78; sepsis; human.
XX
OS
     Homo sapiens.
XX
PN
     JP2003096099-A.
XX
PD
     03-APR-2003.
XX
PF
     10-JUL-2002; 2002JP-00200946.
XX
PR
     13-JUL-2001; 2001JP-00213997.
XX
PΑ
     (SHIN-) SHINOTEST KK.
XX
     WPI; 2003-572672/54.
DR
XX
PT
     New antibody for measuring human high mobility group protein-1 (HMG-1)
PT
     binds human HMG-1, but does not bind human HMG-2 protein.
XX
PS
     Example 1; SEQ ID NO 5; 28pp; Japanese.
XX
CC
     This invention relates to a novel antibody which specifically binds human
```

```
high mobility group protein-1 (HMG-1) and which does not bind with human
CC
     HMG-2 protein. Specifically, it relates to an immunological reagent for
CC
     measuring human HMG-1 in a sample comprising the new antibody. The
CC
     peptide immunogen may be modified from the defined sequence by the
CC
     deletion, substitution, addition, or modification of one or more
CC
     residues. A hybridoma expressing the new antibody is designated MD78. HMG
CC
     -1 may be used as a marker of disease such as sepsis and the antibody and
CC
CC
     method may be useful for example in clinical laboratory tests.
CC
     Measurement of human HMG using the new antibody is easier and more
     reliable than with current methods, furthermore the method may be
CC
CC
     automated. This peptide sequence is a human peptide (SeqID 5) derived
CC
     from the human HMG-2 protein sequence in an exemplification of the
CC
     invention.
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 7; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.9e+02;
  Matches
            4; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            6 PNKP 9
Qу
              5 PNKP 8
Db
RESULT 22
AAP70892
     AAP70892 standard; peptide; 11 AA.
XX
     AAP70892;
AC
XX
DT
     31-OCT-2002 (revised)
     05-JUN-1991 (first entry)
DT
XX
DE
     Sequence of analogue of serine protease inhibitor.
XX
KW
     Enzyme; complement activation; therapy; clot degradation.
XX
OS
     Synthetic.
XX
PN
     EP238473-A.
XX
PD
     23-SEP-1987.
XX
ΡF
     17-MAR-1987;
                    87EP-00870035.
XX
PR
     18-MAR-1986;
                    86US-00840810.
     06-FEB-1987;
                    87US-00006725.
PR
XX
PΑ
     (MONS ) MONSANTO CO.
XX
PI
     Glover GI, Schasteen CS;
XX
DR
     WPI; 1987-265792/38.
XX
PT
     New peptide cpds. which inhibit serine protease - extensively homologous
     with natural inhibitors, useful e.g. for treating excessive complement
PT
```

```
PT
     activation.
XX
     Claim 26; Page 31; 34pp; English.
PS
XX
     The peptides of the invention are useful for treating diseases associated
CC
     with excessive protease activity particularly those involved in
CC
     complement activation, blood clotting and clot degradation. The usual
CC
CC
     dose is 0.1-10mg/kg. (Updated on 31-OCT-2002 to add missing OS field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                               0;
Qу
            7 NKP 9
              111
Db
            4 NKP 6
RESULT 23
AAP82338
     AAP82338 standard; protein; 11 AA.
ID
XX
AC
     AAP82338;
XX
DT
     13-NOV-1990 (first entry)
XX
     Compound in vaccine against Plasmodium falciparum malaria (Formula III).
DE
XX
KW
     Malaria vaccines; polymers; Plasmodium falciparum; asexual blood stage;
KW
     human parasite.
XX
OS
     Synthetic.
XX
PN
     EP275196-A.
XX
PD
     20-JUL-1988.
XX
                    88EP-00300262.
PF
     13-JAN-1988;
XX
PR
     14-JAN-1987;
                    87US-00003194.
     29-DEC-1987;
                    87US-00135027.
PR
XX
PA
     (PATA/) PATARROYO M E.
XX
PΙ
     Patarroyo ME;
XX
DR
     WPI; 1988-199632/29.
XX
PT
     New peptide(s) and peptide polymers - useful for prodn. of malaria
PT
     vaccines.
XX
PS
     Claim 15 (III); Page 13; 13pp; English.
XX
CC
     The peptide is a vaccine component against the asexual blood stage of the
CC
     malaria parasite. It is the synthetic hybrid protein SPf 83.1 peptide of
```

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described by Holder et al. Nature, Vol.317, pages 270-273. Sep.1985. The
CC
     peptide is an alpha hydrophilic structure, and the compound even on its
CC
     own elicits antibodies delaying the appearance of parasitaemia in some
CC
     vaccinated animals. Mixtures of the peptides of AAP82336-P82340 provide
CC
CC
     complete immunity
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3: Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
Qу
            3 KEK 5
              \perp
            6 KEK 8
Db
RESULT 24
AAP82813
     AAP82813 standard; protein; 11 AA.
ID
XX
AC
     AAP82813;
XX
DT
     06-DEC-1990
                  (first entry)
XX
DΕ
     Peptide fragment of Plasmodium proteins used in antimalaria vaccines.
XX
KW
     Plasmodium; antimalarial vaccine; parasite.
XX
OS
     Synthetic.
XX
PN
     US4735799-A.
XX
     05-APR-1988.
PD
XX
PF
     14-JAN-1987;
                    87US-00003194.
XX
PR
     29-DEC-1987;
                    87US-00135027.
XX
PA
     (PATA/) PATARROYO M E.
XX
PΙ
     Patarroyo ME;
XX
DR
     WPI; 1988-112448/16.
XX
PT
     New peptide fragments of Plasmodium proteins - useful for prodn. of
     antimalarial vaccines.
PT
XX
PS
     Claim 3; Page 9; 6pp; English.
XX
CC
     This peptide is an alpha hydrophilic structure corresponding to amino
CC
     acid residues 43-53 of the 195 kD amino acid sequence. (Holder et al.
     Nature, Vol. 317, pages 270-273, September 1985). Vaccines contain (I),
CC
     (II) and (III); AAP82811, AAP82812 and AAP82812 resp; in a wt. ratio of
CC
CC
     (1-10):(1-10):(1-10), esp. 1:1:1, in normal saline soln. or squalene.
CC
     Immunogenic activity may be increased by coupling (I)-(III) to bovine
```

11 amino acids. It corresponds to residues 43-536 of the 195 kD sequence

CC

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CC
     serum albumin with gluteraldehyde or by coupling (I)-(III) by
     copolymerisation. The peptides (I)-(V); AAP82811-15; provide partial
CC
CC
     immunity to malaria caused by Plasmodium falciparum. Combinations of (I)-
     (III) provide complete immunity in Aotos monkeys
CC
XX
     Sequence 11 AA;
SQ
  Query Match
                           27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
Qy
            3 KEK 5
              \mathbf{1}\mathbf{1}\mathbf{1}
Db
            6 KEK 8
RESULT 25
AAR08092
     AAR08092 standard; protein; 11 AA.
ID
XX
AC
     AAR08092;
XX
DT
     25-MAR-2003
                  (revised)
DT
     01-MAR-1991 (first entry)
XX
DE
     Antifreeze segment #2 encoded by SS3.
XX
KW
     synthetic antifreeze polypeptide; cryopreservation;
KW
     core repetitive sequence.
XX
os
     Synthetic.
XX
PN
     WO9013571-A.
XX
PD
     15-NOV-1990.
XX
PF
     10-MAY-1989;
                    89US-00350481.
XX
PR
     10-MAY-1989;
                    89US-00350481.
PR
     10-APR-1990;
                    90US-00507716.
XX
     (DNAP ) DNA PLANT TECHN COR.
PA
XX
PI
     Warren GJ, Mueller JM, Mckown RJ, Dunsmuir P;
XX
DR
     WPI; 1990-361428/48.
XX
PT
     New anti-freeze poly-peptide(s) - used for cryo-protection of e.g. foods,
PT
     medically used biological(s), plant prods. or plants during growth.
XX
PS
     Disclosure; Fig 4; 111pp; English.
XX
CC
     Synthetic anti-freeze polypeptides (saf) comprise a specifically
     cleavable site and a region containing at least two "core" segments such
CC
     as the 11mer given here. The saf's suppress ice crystal growth by binding
CC
CC
     to the growing crystal face and blocking sites for further crystal
CC
     growth. They can be used to maximise retention of important properties of
```

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organic materials through freezing and thawing processes. The basic
CC
CC
     design of the polypeptides is based on known antifreeze polypeptides from
     insects and fish, e.g. the winter flounder. See also AAQ06649-Q06652,
CC
     AAQ06656, AAQ06658, AAQ06660-Q06672, AAR08070-6, AAR08087-R08091,
CC
     AAR08093. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-
CC
CC
     MAR-2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI
CC
     field.)
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                                 0; Mismatches
  Matches
             3; Conservative
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            1 AKK 3
              111
            8 AKK 10
Db
RESULT 26
AAR27233
     AAR27233 standard; peptide; 11 AA.
XX
     AAR27233;
AC
XX
DT
     25-MAR-2003
                  (revised)
DT
     20-MAY-1998
                 (first entry)
XX
DΕ
     Thrombin receptor agonist peptide.
XX
KW
     Diagnosis; cardiovascular disease; wound healing; restenosis; thrombosis;
KW
     unstable angina treatment; myocardial infarction; thrombotic;
KW
     thromboembolytic stroke.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
    modified site
FT
                     /note= "cyclohexylalanine"
FT
    modified site
FT
                     /note= "cyclohexylalanine"
XX
PN
     WO9214750-A1.
XX
PD
     03-SEP-1992.
XX
PF
     19-FEB-1992;
                    92WO-US001312.
XX
PR
     19-FEB-1991;
                    91US-00657769.
     07-NOV-1991;
                    91US-00789184.
PR
XX
PΑ
     (REGC ) UNIV CALIFORNIA.
     (CORT-) COR THERAPEUTICS INC.
PA
XX
PI
     Coughlin SR, Scarborough RM;
XX
DR
    WPI; 1992-316119/38.
```

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XX
     DNA encoding cell surface receptor for thrombin - useful for determining
PT
     thrombin in diagnosing e.g. cardiovascular diseases, also to treat wound
PT
PT
     healing, restenosis etc.
XX
     Claim 10; Page 59; 81pp; English.
PS
XX
CC
     The peptide is a thrombin receptor agonist and can be used in a
CC
     pharmaceutical compsn. for wound healing. It is also useful in
     encouraging platelet aggregation, e.g. in localised application at
CC
     internal bleeding sites of haemophiliacs, and in mimicking thrombin's
CC
CC
     ability to stimulate fibroblast proliferation to promote wound healing.
     See also AAR27224-R27240. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
 Matches
             3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                              0;
            9 PND 11
Qy
              111
Db
            8 PND 10
RESULT 27
AAR36909
     AAR36909 standard; peptide; 11 AA.
XX
AC
     AAR36909;
XX
DT
     25-MAR-2003
                  (revised)
DT
     02-SEP-1993 (first entry)
XX
DE
     Insulin-like growth factor-II functional derivative.
XX
     IGF-II; disorder; treatment; survival; retinal neuronal cells; promotion;
KW
     injury; ageing; disease; photodegeneration; trauma; axotomy;
KW
     neurotoxic-excitatory degeneration; diabetic retinopathy;
KW
     ischemic neuronal degeneration; inherited retinal dystrophy;
KW
     Alzheimer's disease; infantile malignant osteopetrosis; cholestasis;
KW
KW
     ceroid-lipofuscosis; cyclic.
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
FT
     Disulfide-bond 1. .11
XX
PN
     WO9308826-A1.
XX
     13-MAY-1993.
PD
XX
PF
     03-NOV-1992;
                    92WO-US009443.
XX
PR
     08-NOV-1991;
                    91US-00790690.
     15-OCT-1992;
                    92US-00963329.
PR
XX
```

```
(CEPH-) CEPHALON INC.
PΑ
XX
PI
     Bozyczko-Coyne D, Neff N, Lewis ME, Iqbal M;
XX
     WPI; 1993-167389/20.
DR
XX
PT
     Use of IGF-I or IGF-II or their functional derivs. - for treating
PΤ
     disorders characterised by death and/or dysfunction of retinal cells.
XX
     Example; Page 71; 97pp; English.
PS
XX
CC
     The sequence is that of a functional derivative of human insulin-like
CC
     growth factor (IGF)-II which promotes the survival of retinal neuronal
CC
     cells. It can be used for the treatment of retinal neuronal tissues which
CC
     are suffering from the effects of injury, ageing and/or disease such as
CC
     photodegeneration, trauma, axotomy, neurotoxic-excitatory degeneration,
CC
     ischemic neuronal degeneration, inherited retinal dystrophy, diabetic
CC
     retinopathy, Alzheimer's disease, infantile malignant osteopetrosis,
     ceroid lipofuscosis or cholestasis. (Updated on 25-MAR-2003 to correct PN
CC
CC
     field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches
                                                                             0;
                                                   0; Indels
                                                                 0; Gaps
 Matches
            7 NKP 9
Qу
              -111
            4 NKP 6
Db
RESULT 28
AAR35381
     AAR35381 standard; peptide; 11 AA.
ID
XX
AC
    AAR35381;
XX
DT
     25-MAR-2003 (revised)
DT
     07-JUN-1993 (first entry)
XX
DΕ
    Amphiphilic peptide #112 used to treat oral infections.
XX
KW
     Adverse oral conditions; amphipathic; anti-bacterial; anti-viral;
KW
     anti-fungal; dental plaque; dental caries; periodontal disease;
KW
     gingivitis; ionophore; ion-channel forming.
XX
OS
     Synthetic.
XX
     W09301723-A1.
PN
XX
PD
     04-FEB-1993.
XX
ΡF
     09-JUL-1992;
                    92WO-US005757.
XX
PR
     25-JUL-1991;
                   91US-00735070.
XX
```

```
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Berkowitz B,
                  Jacob L;
XX
     WPI; 1993-058434/07.
DR
XX
PT
     Peptide(s) for prophylaxis and treatment of oral disorders - used for
PT
     periodontal disease, plaque, dental caries, qinqivitis, etc.
XX
PS
     Claim 2; Page 129; 143pp; English.
XX
CC
     This is a specific example of a highly generic formula covering preferred
     amphiphilic peptides for use in preventing or treating adverse oral
CC
CC
     conditions. The peptide is an ionophore (i.e. an ion- channel forming
CC
     peptide) which has anti-bacterial, anti-viral, anti-fungal activity,
CC
     etc. making it suitable for use in oral compositions to treat or prevent
CC
     periodontal disease, plaque, dental caries, halitosis and gingivitis. The
CC
     anti-bacterial action will also be useful against bacteria associated
CC
     with dental implant infections and the peptides can stimulate the healing
     of wounds in the oral cavity. (Updated on 25-MAR-2003 to correct PN
CC
CC
     field.)
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
             3; Conservative 0; Mismatches
  Matches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              | | | |
            1 AKK 3
Db
RESULT 29
AAR43417
     AAR43417 standard; peptide; 11 AA.
ID
XX
AC
     AAR43417;
XX
DT
     25-MAR-2003
                  (revised)
DT
     12-MAY-1994
                 (first entry)
XX
DΕ
     La/SSb epitope 270.
XX
KW
     Linear; epitope; 60 kD; Ro/SSA; La/SSB; autoantigen; E/F; G; 70 kD;
KW
     nuclear ribonucleoprotein; nRNP; Sm B/B'; polypeptide; antigen; D;
KW
     systemic lupus erythematosus; SLE; autoantibody; U4/U6; U5; B; B';
     RNA polymerase III; U1; U2; Sjogrens syndrome; SS; human; vaccine; ss.
KW
XX
OS
     Homo sapiens.
XX
ΡN
     WO9321223-A1.
XX
PD
     28-OCT-1993.
XX
PF
     13-APR-1993;
                    93WO-US003484.
XX
```

```
PR
     13-APR-1992;
                    92US-00867819.
XX
PΑ
     (OKLA ) UNIV OKLAHOMA STATE.
XX
     Harley JB;
PΙ
XX
     WPI; 1993-351658/44.
DR
XX
PT
     New linear epitope(s) for human auto-antibodies - from the Ro/SSA, La/SSB
     and Sm B/B' antigens and ribo: nucleoprotein, used for diagnosing and
PT
     treating auto-immune disorders e.g. systemic lupus erythematosus.
PT
XX
PS
     Claim 1; Page 30; 43pp; English.
XX
CC
     The sequences given in AAR43391-562 are linear epitopes which are derived
CC
     from the 60 kD Ro/SSA peptide, the La/SSB autoantigen, the 70 kD nuclear
CC
     ribonucleoprotein (nRNP) and the Sm B/B' polypeptide. These antigens are
CC
     common in systemic lupus erythematosus (SLE) and closely related
CC
     disorders. The Ro/SSA family of proteins has been shown to have several
     molecular forms which are defined by the molecular weight of the antigen
CC
CC
     identified. The major form has a molecular weight of 60 kD and two
     additional forms have molecular weights of 52 and 54 kD. La/SSB is also a
CC
    member of this group of autoantibodies and binds small RNAs with a
CC
CC
     polyuridine terminus. La/SSB is bound by a third of the anti-Ro/SSA
CC
    precipitin positive sera. La/SSB has been shown to be a 46-50~\mathrm{kD}
CC
    monomeric phosphoprotein which associates with RNA polymerase III
CC
     transcripts. Anti-Sm antibodies precipitate snRNPs containing the U1, U2,
CC
     U4/U6 and U5 RNA. Anti-Sm antibodies may be directed against one or a
     combination of the polypeptides: B (26 kD), B' (27 kD), D (13 kD), E/F
CC
     (11 kD doublet) and G (less than 10 kD). These epitopes may be used for
CC
     preventing, treating or screening autoimmune disorders, especially SLE or
CC
CC
     Sjogrens syndrome (SS). They bind to a human autoantibody and may
CC
     therefore be used as vaccines. (Updated on 25-MAR-2003 to correct PN
CC
     field.)
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
                              0; Mismatches
                                                                              0;
  Matches
             3; Conservative
                                                   0; Indels
                                                                  0; Gaps
            3 KEK 5
Qу
              +++
            7 KEK 9
Db
RESULT 30
AAR33973
    AAR33973 standard; peptide; 11 AA.
XX
AC
    AAR33973;
XX
DT
     25-MAR-2003
                  (revised)
                  (first entry)
DT
     21-JUL-1993
XX
DE
     Amphiphilic peptide (e), #2.
XX
```

```
Hydrophobic; hydrophilic; neutral; (e); ionophore; channel-forming;
ΚW
     human; virus; antimicrobial; antiviral; antibacterial; antitumour;
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
     wound healing; burn; infection; eye; cysts; spores; trophozoites; plants;
ΚW
KW
     contamination.
XX
OS
     Synthetic.
XX
                     Location/Oualifiers
FΗ
     Key
FT
    Modified-site
                     /note= "May be acetylated"
FT
FT
    Modified-site
                     /note= "May be amidated"
FT
XX
PN
     WO9305802-A1.
XX
PD
     01-APR-1993.
XX
PF
     04-SEP-1992;
                    92WO-US007622.
XX
                    91US-00760054.
PR
     13-SEP-1991;
     20-APR-1992;
                    92US-00870960.
PR
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PI
    Maloy WL,
                Kari UP, Williams JI;
XX
DR
    WPI; 1993-117245/14.
XX
     New biologically active amphiphilic peptide cpds. - having ion channel-
PT
     forming properties used for inhibiting growth of target cells, virus or
PT
PT
     viral-infected cells.
XX
     Claim 27; Page 33; 46pp; English.
PS
XX
CC
     This sequence is an example of a biologically active peptide which
     corresponds to the generic sequence; R1-R2-R2-R1-R1-R2-R2-R1-R2-R2-R1
CC
CC
     where R1 = a hydrophobic amino acid; and R2 = a basic hydrophilic or
     neutral hydrophilic amino acid. This basic structure was designated (e).
CC
CC
     Peptides such as this are ionophores ie. they have channel-forming
     properties. The peptides can be administered to a host, eq, humans, to
CC
CC
     inhibit the growth of a target cell, virus or virally infected cell. They
CC
     can be used as antimicrobial, antiviral agents, antibacterial agents,
     antitumour agents, antiparasitic agents, and as spermicides. They can be
CC
CC
     used as preservatives or sterilants or disinfectants. These peptides can
CC
     also be used to promote or stimulate healing of wounds, to treat and/or
     prevent prevent skin or burn infections, to prevent or treat eye
CC.
     infections and to kill cysts, spores or trophozoites of infection causing
CC
     organisms. The peptides may also be administered to plants to prevent or
CC
CC
     treat microbial, viral or parasitic contamination. (Updated on 25-MAR-
CC
     2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
             3; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
1 AKK 3
Qу
              111
            1 AKK 3
Db
RESULT 31
AAR31163
     AAR31163 standard; peptide; 11 AA.
XX
AC
     AAR31163;
XX
DТ
     25-MAR-2003
                  (revised)
DT
     10-MAY-1993
                  (first entry)
XX
DE
     C-terminal substd. amphiphilic peptide #112.
XX
KW
     ion-channel forming; ionophore; antibiotic; anti-tumour; anti-virus;
KW
     wound healing.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
                     /note= "Leu-(C=O)-T, T= O-R, NH-NH2, NH-OH or NR'R''; R=
FT
                     opt.substd. 1-10C aliphatic, aromatic or aralkyl gp.; R',
FT
                     R''= H or from one of gps. i and ii; gp.i= 1-10C hydroxy-
FT
                     substd. aliphatic, aromatic or aralkyl gp.; gp.ii= amino-
FT
FT
                     substd. aliphatic, aromatic, aralkyl or alkylaromatic gp.
                     and at least one of R' and R'' = gp.i or gp.ii''"
FT
XX
PN
     WO9222317-A1.
XX
PD
     23-DEC-1992.
XX
                    92WO-US004603.
PF
     01-JUN-1992;
XX
PR
     12-JUN-1991;
                    91US-00713716.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
    Maloy WL, Kari UP;
PΙ
XX
    WPI; 1993-017904/02.
DR
XX
PT
     New C-terminal-substd. amphiphilic peptide(s) - for treating bacterial,
PT
     viral or fungal infections and tumours, also useful as spermicide.
XX
PS
     Claim 21; Page 114; 124pp; English.
XX
CC
     This peptide is a preferred example of a highly generic amphiphilic
CC
     peptide with a C-terminal modification which increases the peptide's
     biological activity c.f. the unmodified peptide. The preferred C-terminal
CC
CC
     modification is -(CO)-NHCH2CH2OH or -(CO)-NHCH2CH2NH2. Such substd.
     peptides may be used for inhibiting the growth of a target cell, virus or
CC
     virally-infected cell in a host. The peptides have a broad range of
CC
CC
     potent antibiotic activity, e.g. against gram- negative and gram-positive
```

```
promote wound healing and treatment of burns. Other preferred amphiphilic
CC
     peptides include magainins and their analogues, PGLa, XPF, CPF, a
CC
CC
     cecropin and a sarcotoxin. (Updated on 25-MAR-2003 to correct PN field.)
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
  Matches
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              \perp
Db
            1 AKK 3
RESULT 32
AAR34249
ID
     AAR34249 standard; peptide; 11 AA.
XX
AC
     AAR34249;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-AUG-1993
                 (first entry)
XX
     Mutant HTLV-I residues 88-98, peptide 2L-1.3.
DΕ
XX
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
KW
XX
OS
     Synthetic.
XX
PN
     WO9306843-A1.
XX
PD
     15-APR-1993.
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
PR
     08-OCT-1991;
                    91US-00771553.
XX
PΑ
     (UYDU-) UNIV DUKE.
XX
PΙ
     Palker TJ, Haynes BF;
XX
DR
     WPI; 1993-134125/16.
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
XX
PS
     Example 7; Page 32; 50pp; English.
XX
CC
     To determine which amino acids within the HTLV-I envelope amino acids 88-
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
```

bacteria, fungi, protozoa and parasites. The peptides can also be used to

```
and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
Qу
            5 KPN 7
              4 KPN 6
Db
RESULT 33
AAR34247
     AAR34247 standard; peptide; 11 AA.
ID
XX
AC
     AAR34247;
XX
DT
     25-MAR-2003
                  (revised)
DΤ
     04-AUG-1993 (first entry)
XX
DE
     Mutant HTLV-I residues 88-98, peptide 2L-1.1.
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
KW
XX
os
     Synthetic.
XX
PN
     WO9306843-A1.
XX
     15-APR-1993.
PD
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
PR
     08-OCT-1991;
                    91US-00771553.
XX
PΑ
     (UYDU-) UNIV DUKE.
XX
PΙ
     Palker TJ, Haynes BF;
XX
     WPI; 1993-134125/16.
DR
XX
PT
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
PS
     Example 7; Page 32; 50pp; English.
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
```

```
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
                               0; Mismatches
             3; Conservative
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            5 KPN 7
Qу
              \Pi\Pi
            4 KPN 6
Db
RESULT 34
AAR34255
ID
     AAR34255 standard; peptide; 11 AA.
XX
AC
     AAR34255;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-AUG-1993
                  (first entry)
XX
DE
     Mutant HTLV-I residues 88-98, peptide 2L-1.9.
XX
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
KW
XX
OS
     Synthetic.
XX
     WO9306843-A1.
PN
XX
PD
     15-APR-1993.
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
PR
     08-OCT-1991;
                    91US-00771553.
XX
PA
     (UYDU-) UNIV DUKE.
XX
PΙ
     Palker TJ, Haynes BF;
XX
     WPI; 1993-134125/16.
DR
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
XX
PS
     Example 7; Page 32; 50pp; English.
XX
CC
     To determine which amino acids within the HTLV-I envelope amino acids 88-
     98 were required for absorption of neutralising anti-peptide antibodies
CC
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
```

XX

```
27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3: Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            5 KPN 7
Qy
             4 KPN 6
Db
RESULT 35
AAR34257
    AAR34257 standard; peptide; 11 AA.
ΙD
XX
AC
     AAR34257;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-AUG-1993
                 (first entry)
XX
DE
    Mutant HTLV-I residues 88-98, peptide 2L-1.11.
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
XX
OS
     Synthetic.
XX
PN
     WO9306843-A1.
XX
PD
     15-APR-1993.
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
     08-OCT-1991;
                    91US-00771553.
PR
XX
PA
     (UYDU-) UNIV DUKE.
XX
     Palker TJ, Haynes BF;
PΙ
XX
DR
     WPI; 1993-134125/16.
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
XX
     Example 7; Page 32; 50pp; English.
PS
XX.
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-56.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
     Sequence 11 AA;
SO
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
```

```
Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                               0; Mismatches
                                                  0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            5 KPN 7
Qу
              +111
            4 KPN 6
Db
RESULT 36
AAR34256
     AAR34256 standard; peptide; 11 AA.
XX
AC
     AAR34256;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-AUG-1993
                 (first entry)
XX
DE
     Mutant HTLV-I residues 88-98, peptide 2L-1.10.
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
ΚW
XX
OS
     Synthetic.
XX
PN
     WO9306843-A1.
XX
PD
     15-APR-1993.
XX
                    92WO-US008405.
PF
     08-OCT-1992;
XX
PR
     08-OCT-1991;
                    91US-00771553.
XX
PΑ
     (UYDU-) UNIV DUKE.
XX
PΙ
     Palker TJ, Haynes BF;
XX
DR
     WPI; 1993-134125/16.
XX
     Antiquenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
XX
PS
     Example 7; Page 32; 50pp; English.
XX
CC
     To determine which amino acids within the HTLV-I envelope amino acids 88-
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
             3; Conservative 0; Mismatches
                                                    0; Indels
                                                                              0;
  Matches
                                                                  0; Gaps
```

```
5 KPN 7
Qу
              111
Db
            4 KPN 6
RESULT 37
AAR34254
     AAR34254 standard; peptide; 11 AA.
XX
AC
     AAR34254;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-AUG-1993
                  (first entry)
XX
DE
     Mutant HTLV-I residues 88-98, peptide 2L-1.8.
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
XX
     Synthetic.
OS
XX
PN
     WO9306843-A1.
XX
PD
     15-APR-1993.
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
                    91US-00771553.
PR
     08-OCT-1991;
XX
PΑ
     (UYDU-) UNIV DUKE.
XX
PΙ
     Palker TJ, Haynes BF;
XX
DR
     WPI; 1993-134125/16.
XX
PT
    Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
PS
     Example 7; Page 32; 50pp; English.
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
```

```
|||
4 KPN 6
```

Db

```
RESULT 38
AAR34248
     AAR34248 standard; peptide; 11 AA.
XX
AC
     AAR34248;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-AUG-1993
                  (first entry)
XX
DE
     Mutant HTLV-I residues 88-98, peptide 2L-1.2.
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
XX
OS
     Synthetic.
XX
PN
     WO9306843-A1.
XX
PD
     15-APR-1993.
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
PR
     08-OCT-1991;
                    91US-00771553.
XX
PΑ
     (UYDU-) UNIV DUKE.
XX
PΙ
     Palker TJ, Haynes BF;
XX
DR
     WPI; 1993-134125/16.
XX
PT
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
XX
PS
     Example 7; Page 32; 50pp; English.
XX
CC
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                              0;
                                                                  0; Gaps
            1 AKK 3
Qу
              111
            2 AKK 4
Db
```

```
AAR34253
     AAR34253 standard; peptide; 11 AA.
XX
AC
     AAR34253;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-AUG-1993
                  (first entry)
XX
     Mutant HTLV-I residues 88-98, peptide 2L-1.7.
DE
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
ΚW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
XX
OS
     Synthetic.
XX
ΡN
     WO9306843-A1.
XX
PD
     15-APR-1993.
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
     08-OCT-1991;
                    91US-00771553.
PR
XX
PA
     (UYDU-) UNIV DUKE.
XX
PΙ
     Palker TJ, Haynes BF;
XX
DR
     WPI; 1993-134125/16.
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
XX
PS
     Example 7; Page 32; 50pp; English.
XX
     To determine which amino acids within the HTLV-I envelope amino acids 88-
CC
CC
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%;
                                  Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                                                                               0;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
            5 KPN 7
Qу
              111
            4 KPN 6
Db
```

RESULT 39

```
RESULT 40
AAR34246
     AAR34246 standard; peptide; 11 AA.
ID
XX
    AAR34246;
AC
XX
     25-MAR-2003 (revised)
DT
DT
     04-AUG-1993 (first entry)
XX
    HTLV-I residues 88-98, peptide 2L-1.
DE
XX
KW
    Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
    diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
XX
OS
     Synthetic.
XX
PN
    WO9306843-A1.
XX
PD
    15-APR-1993.
XX
PF
    08-OCT-1992;
                    92WO-US008405.
XX
PR
    08-OCT-1991;
                   91US-00771553.
XX
     (UYDU-) UNIV DUKE.
PA
XX
PΙ
    Palker TJ, Haynes BF;
XX
DR
    WPI; 1993-134125/16.
XX
    Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
    for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
PT
XX
     Example 7; Page 32; 50pp; English.
PS
XX
CC
    To determine which amino acids within the HTLV-I envelope amino acids 88-
     98 were required for absorption of neutralising anti-peptide antibodies
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
    These 11 mutated peptides, as well as peptide 2L-1 bearing the native
    HTLV-I sequence were tested and identified that amino acids 90, 92, 93
CC
CC
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
   Sequence 11 AA;
SQ
                          27.3%;
                                  Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity
                          100.0%; Pred. No. 8e+03;
            3; Conservative
                              0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                              0;
 Matches
            5 KPN 7
Qy
             +++
            4 KPN 6
Db
```

RESULT 41 AAR41495

```
ID
    AAR41495 standard; peptide; 11 AA.
XX
AC
    AAR41495;
XX
     23-FEB-1994 (first entry)
DT
XX
    TNF inhibitory peptide VII.
DE
XX
    Tumour necrosis factor; TNF; inhibition; solid phase synthesis; ss.
KW
XX
OS
     Synthetic.
XX
PN
     JP05194594-A.
XX
PD
     03-AUG-1993.
XX
PF
     21-JAN-1992;
                    92JP-00029044.
XX
PR
     21-JAN-1992;
                    92JP-00029044.
XX
PA
     (SAGA ) SAGAMI CHEM RES CENTRE.
XX
DR
    WPI; 1993-282916/36.
XX
     TNF inhibitory novel peptide(s) - include N-terminal amino Gp. which is
PT
     opt. modified with acetyl, T-butoxy-carbonyl or benzyl-oxy-carbonyl Gp.
PT
     and C-terminal carboxy Gp. is opt. amidated.
PT
XX
PS
     Claim 1; Page 6; 8pp; Japanese.
XX
     The sequences given in AAR41489-99 are tumour necrosis factor (TNF)
CC
     inhibitory peptides. They may optionally be modified at the N- terminal
CC
CC
     with an acetyl, t-butoxycarbonyl or benzyloxycarbonyl, and at the C-
     terminal they are optionally amidated. These peptides are produced by
CC
     solid phase synthesis methods and may be produced at low cost
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
                                                                              0;
 Matches
            3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            1 AKK 3
Qу
              +11
Db
            3 AKK 5
RESULT 42
AAR43603
     AAR43603 standard; peptide; 11 AA.
XX
     AAR43603;
AC
XX
DT
     25-MAR-2003 (revised)
DT
     10-MAY-1994
                 (first entry)
XX
DE
     Peptide derived from insulin-like growth factor.
```

```
XX
KW
     IGF; IGF-II; neuronal cell survival; neurite regeneration; stroke;
KW
     epilepsy; Parkinson's disease; head injury; spinal cord injury;
KW
     age- related neuronal loss; amylotropic lateral sclerosis; cyclic.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Kev
     Disulfide-bond 1. .11
FT
XX
PN
     WO9320836-A1.
XX
PD
     28-OCT-1993.
XX
PF
     14-APR-1993;
                    93WO-US003515.
XX
PR
     15-APR-1992;
                    92US-00869913.
PR
     07-OCT-1992;
                    92US-00958903.
XX
PΑ
     (CEPH-) CEPHALON INC.
XX
PΙ
     Lewis ME,
                Kauer JC,
                           Smith KR, Callison KV, Baldino F, Neff N;
PΙ
     Iqbal M;
XX
DR
    WPI; 1993-351361/44.
XX
PT
     Peptide(s) derived from insulin-like growth factor - used for promoting
     neuronal cell survival and neurite regeneration, partic. in treating
PT
PT
     diseases e.g. stroke, epilepsy, Parkinson's, etc.
XX
PS
     Claim 17; Page 80; 119pp; English.
XX
CC
     The sequence is that of a fragment of insulin-like growth factor II (IGF-
CC
     II). The synthetic peptide can be used to enhance the survival of
     neuronal cells in a mammal that are at risk of dying or to treat a head
CC
CC
     or spinal cord injury, or to enhance neurite regeneration in a mammal, or
     to treat stroke, epilepsy, age-related neuronal loss, amylotropic lateral
CC
     sclerosis and Parkinson's disease. See also AAR43590-645. (Updated on 25-
CC
CC
    MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
 Matches
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            7 NKP 9
Qу
              \perp
            4 NKP 6
Db
RESULT 43
AAR44562
    AAR44562 standard; protein; 11 AA.
ΙD
XX
AC
    AAR44562;
XX
```

```
DT
     25-MAR-2003 (revised)
DT
     26-MAY-1994 (first entry)
XX
     Encoded by human Ews exon 9/Hum-Fli-1 exon 4 fusion.
DΕ
XX
     chromosomal translocation; chimeric; chimaeric; Ewing sarcoma; Ews gene;
KW
     malignant melanoma; hum-fli-1;
KW
KW
     primitive peripheral neuroectodermal tumour; human chromosome 11;
ΚW
     human chromosome 22.
XX
OS
    Homo sapiens.
XX
FH
     Key
                     Location/Qualifiers
FT
     Region
                     1. .5
                     /note= "encoded by 3'-end of Ews exon 9"
FT
FT
     Region
                     6. .11
                     /note= "encoded by 5'-end of Hum-Fli-1 exon 4"
FT
XX
    W09323549-A2.
PN
XX
PD
     25-NOV-1993.
XX
PF
     19-MAY-1993;
                    93WO-FR000494.
XX
PR
     20-MAY-1992;
                    92FR-00006123.
XX
PΑ
     (CNRS ) CNRS CENT NAT RECH SCI.
XX
                            Desmaze C, Melot T, Peter M, Plougastel B;
PI
     Aurias A, Delattre O,
     Thomas G, Zucman J;
PΙ
XX
DR
     WPI; 1993-386580/48.
DR
    N-PSDB; AAQ50675.
XX
PT
    New nucleic acid of EWS gene and its hybrid(s) - contg. gene sequence
     involved in chromosomal trans-location, also derived mRNA, probes, fusion
PT
     proteins etc., for diagnosis and treatment of Ewing sarcoma and melanoma.
PT
XX
     Disclosure; Fig 14; 123pp; French.
PS
XX
     The intron-exon junctions of the human Ews gene and the Hum-Fli-1 gene
CC
     have been sequenced (see AAQ50646 and AAQ50662, respectively). The
CC
     different fusion products which could be formed by fusing exons from the
CC
     two genes, as happens after specific chromosomal translocations, can be
CC
     predicted. See AAR44558-R44565 for the amino acid sequences resulting
CC
     from the different fusion events. (Updated on 25-MAR-2003 to correct PN
CC
CC
     field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8e+03;
                                                                              0;
            3; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
 Matches
            7 NKP 9
Qу
              111
            2 NKP 4
Db
```

```
RESULT 44
AAR44561
     AAR44561 standard; protein; 11 AA.
ID
XX
AC
     AAR44561;
XX
DT
     25-MAR-2003 (revised)
DT
     26-MAY-1994 (first entry)
XX
DE
     Encoded by human Ews exon 9/Hum-Fli-1 exon 7 fusion.
XX
KW
     chromosomal translocation; chimeric; chimaeric; Ewing sarcoma; Ews gene;
KW
     malignant melanoma; hum-fli-1;
KW
     primitive peripheral neuroectodermal tumour; human chromosome 11;
KW
     human chromosome 22.
XX
OS
     Homo sapiens.
XX
FH
     Key
                     Location/Qualifiers
FT
     Region
                     1. .5
FT
                     /note= "encoded by 3'-end of Ews exon 9"
FT
     Region
                     /note= "encoded by 5'-end of Hum-Fli-1 exon 7"
FT
XX
PN
     WO9323549-A2.
XX
PD
     25-NOV-1993.
XX
PF
     19-MAY-1993;
                    93WO-FR000494.
XX
PR
     20-MAY-1992;
                    92FR-00006123.
XX
     (CNRS ) CNRS CENT NAT RECH SCI.
PA
XX
PΙ
     Aurias A, Delattre O, Desmaze C, Melot T, Peter M, Plougastel B;
PI
     Thomas G, Zucman J;
XX
DR
     WPI; 1993-386580/48.
     N-PSDB; AAQ50674.
DR
XX
     New nucleic acid of EWS gene and its hybrid(s) - contg. gene sequence
PT
PT
     involved in chromosomal trans-location, also derived mRNA, probes, fusion
PT
     proteins etc., for diagnosis and treatment of Ewing sarcoma and melanoma.
XX
PS
     Disclosure; Fig 14; 123pp; French.
XX
CC
     The intron-exon junctions of the human Ews gene and the Hum-Fli-1 gene
CC
     have been sequenced (see AAQ50646 and AAQ50662, respectively). The
     different fusion products which could be formed by fusing exons from the
CC
CC
     two genes, as happens after specific chromosomal translocations, can be
     predicted. See AAR44558-R44565 for the amino acid sequences resulting
CC
CC
     from the different fusion events. (Updated on 25-MAR-2003 to correct PN
CC
     field.)
XX
SQ
     Sequence 11 AA;
```

```
Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
  Matches
             3; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
            7 NKP 9
Qv
              +111
Db
            2 NKP 4
RESULT 45
AAR45132
ΙD
     AAR45132 standard; peptide; 11 AA.
XX
AC
     AAR45132;
XX
DT
     25-MAR-2003
                  (revised)
DT
     28-JUN-1994
                 (first entry)
XX
DE
     Amphiphilic peptide for N-terminal lipophilic substitution.
XX
KW
     Ion channel; magainin; PGLa; XPF; CPF; cecropin; sarcotoxin; amphiphilic;
KW
     hydrophobic; hydrophilic; lipophilic; growth; inhibition; target cell;
KW
     virus; virally-infected cell; antimicrobial; antiviral; antitumour;
KW
     antiparasitic; spermicide; wound healing; burn; infection.
XX
OS
     Synthetic.
XX
PN
     WO9324138-A1.
XX
PD
     09-DEC-1993.
XX
PF
     27-MAY-1993;
                    93WO-US005192.
XX
PR
     01-JUN-1992;
                    92US-00891201.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari U;
XX
DR
     WPI; 1993-405419/50.
XX
PT
     Peptide(s) or proteins with an N-terminal lipophilic substit. - used for
PT
     inhibiting growth of target cell, virus or virally-infected cell.
XX
PS
     Disclosure; Page 97-103; 113pp; English.
XX
CC
     A novel compsn. for inhibiting growth of a target cell, virus or virally-
CC
     infected cell comprises a peptide of formula T-N(W)-X (I). X is a
CC
     biologically active amphiphilic ion channel-forming peptide or protein;
CC
     pref. a magainin peptide, a PGLa peptide, a XPF peptide, a CPF peptide, a
CC
     cecropin or a sarcotoxin. N is the nitrogen of the N-terminal amino
CC
     group. T is a lipophilic moiety; pref. R-CO, where R is a 2-16C
CC
     hydrocarbon (alkyl or aromatic or alkylaromatic). T is pref. an octanoyl
CC
     group. W is T or hydrogen. Amphiphilic peptides as examples of X are
     given in AAR45115-138. The N-terminal substd. peptides and proteins have
CC
CC
     increased biological activity as compared with unsubstd. peptides or
```

```
can be used as antimicrobial agents, antiviral agents, antitumour agents,
CC
CC
     antiparasitic agents or spermicides and can also exhibit other bioactive
     functions. They can also be used in promoting or stimulating wound
CC
     healing, for the treatment of external burns and to treat and/or prevent
CC
     skin and burn infections or eye infections. (Updated on 25-MAR-2003 to
CC
CC
     correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                              0; Mismatches
                                                   0; Indels
             3; Conservative
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              | | |
            1 AKK 3
Db
RESULT 46
AAR32183
     AAR32183 standard; peptide; 11 AA.
XX
AC
     AAR32183;
XX
DT
     25-MAR-2003
                 (revised)
DT
     04-JUN-1993
                 (first entry)
XX
DE
     Ranakinin.
XX
KW
     Substance P; dopaminergic neurone; NK-1 type receptor; neuropeptide;
     tachykinin family; sub-family physalaemine; frog brain.
KW
XX
OS
     Rana ridibunda.
XX
PN
     FR2677362-A1.
XX
PD
     11-DEC-1992.
XX
PF
     04-JUN-1991;
                    91FR-00006759.
XX
PR
     04-JUN-1991;
                    91FR-00006759.
XX
PΑ
     (CNRS ) CENT NAT RECH SCI.
     (UYCR-) UNIV CREIGHTON.
PΑ
XX
PI
     Vaudry H, Conlon JM;
XX
     WPI; 1993-047140/06.
DR
     N-PSDB; AAQ36644.
DR
XX
PT
     New tacykinin peptide derivs. e.g. ranakinin - as NK-1 agonists and
PT
     substance P analogues for treating arterial tension and inflammation.
XX
PS
     Claim 6; Page 24; 33pp; French.
XX
CC
     The neuropeptide ranakinin was isolated from extracts of brain from the
```

proteins or peptides substd. at the N-terminal with an acetyl gp. They

```
CC
     frog R.ridibunda by screening for reactivity with serum contg. antibodies
     to the C-terminal part of Substance P. A generic formula (AAR32182) for
CC
CC
     other tachykinin-like peptides was derived from ranakinin. Neuropeptides
     belonging to the tachykinin family act as NK-1 agonists and substance P
CC
     analogues. The peptides corresponding to the generic formula, including
CC
     ranakinin, are likely to have tachykinin-like properties, e.g.
CC
     involvement in transmission of nociceptive information, in arterial
CC
     pressure, salivation, smooth muscle contraction and regulation of
CC
     dopaminergic transmission at the level of the nigro-striatal complex. See
CC
     also AAQ36644. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
             3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0:
  Matches
            5 KPN 7
Qy
              | | | |
            1 KPN 3
Db
RESULT 47
AAR55163
     AAR55163 standard; protein; 11 AA.
ID
XX
AC
     AAR55163;
XX
DT
     25-MAR-2003 (revised)
DT
     11-JAN-1995 (first entry)
XX
     Fragment of retinoic acid receptor RAR-beta.
DE
XX
KW
     Liver; hap; retinoic acid receptor; steroid; thyroid; hormone; hepatoma;
KW
     retinoid; antibody.
XX
OS
     Homo sapiens.
XX
PN
     US5317090-A.
XX
PD
     31-MAY-1994.
XX
PF
     11-DEC-1992;
                    92US-00989902.
XX
                    87US-00133687.
PR
     16-DEC-1987;
                    87US-00134130.
     17-DEC-1987;
PR
PR
     20-JUN-1988;
                    88US-00209009.
                    88US-00278136.
PR
     30-NOV-1988;
                    89US-00330405.
     30-MAR-1989;
PR
                    91US-00751612.
PR
     21-AUG-1991;
PR
     30-MAR-1992;
                    92US-00860577.
XX
PΑ
     (INSP ) INST PASTEUR.
XX
     Marchio A, Chambon P, Petkovich M, Krust A, Dejean A, Tiollais P;
PΙ
PΙ
     Brand N, De The HB;
XX
```

```
WPI; 1994-176333/21.
DR
XX
PT
     Antibody specific for retinoic acid receptor-beta - useful for detecting,
PT
     quantifying and identifying agonists and antagonists of retinoid
PT
     activity.
XX
     Claim 4; Col 40; 35pp; English.
PS
XX
CC
     The retinoic acid receptor RAR-beta is encoded by a gene designated hap.
     The hap gene is transcribed at low level in most human tissues, but the
CC
     gene is overexpressed in prosate and kidney. Six out of seven hepatoma or
CC
CC
     hepatoma-derived cell lines express a small hap transcript which is
CC
     undetectable in normal adult and foetal livers but present in all non-
CC
     hepatic tissues tested. (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ
     Sequence 11 AA;
Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            2 KKE 4
Qу
              -111
            7 KKE 9
Db
RESULT 48
AAR67115
     AAR67115 standard; peptide; 11 AA.
ID
XX
AC
     AAR67115;
XX
DT
     25-MAR-2003 (revised)
DT
     30-JUN-1995 (first entry)
XX
DΕ
     Anti-inflammatory peptide (AIP-IL8R2) contg. proline brackets.
XX
KW
     anti-inflammatory peptide; interleukin-8 receptor; inhibitor; mimic;
KW
     interaction site; constrained conformation.
XX
     Synthetic.
OS
XX
PN
     WO9425482-A1.
XX
     10-NOV-1994.
PD
XX
PF
     21-APR-1994;
                    94WO-US004294.
XX
                    93US-00051741.
PR
     23-APR-1993;
     29-OCT-1993;
                    93US-00143364.
PR
XX
PΑ
     (EVAN/) EVANS H J.
     (KINI/) KINI R M.
PA
XX
PΙ
     Evans HJ, Kini RM;
XX
DR
     WPI; 1994-358186/44.
```

```
XX
PT
     Peptide homologue or analogue with constrained conformation - has proline
PT
     residues flanking the interaction site to impart greater, or more stable,
PT
     biological activity.
XX
PS
     Example 3; Page 38; 57pp; English.
XX
CC
     AAR67114-17 are anti-inflammatory peptides derived from naturally
CC
     occuring polypeptides that contain proline or proline/cysteine brackets.
     These peptides are shortened to form fragments that contain one or more
CC
CC
     interaction sites of interest. AAR67114-115 are deriv. from the
CC
     interleukin-8 receptor. The dose is 5-50 nanomoles. The peptides interact
CC
     with interleukin-8 and inhibit its ability to act as a chemo-attractant,
CC
     and thus inhibits the pro-inflammatory effects of the interleukin. The
CC
     data collected demonstrates that interaction sites possess activity when
CC
     present in a polypeptide that differs from the native form. Inclusion of
CC
     conformation-constraining moieties can have desirable effects on an
CC
     interaction site. (Also see AAR67011-113 and AAR67116-52 for analogues of
CC
     other biologically active peptides contg. an interaction site flanked by
CC
     conformation constraining gps., eg. RGD peptides.) (Updated on 25-MAR-
CC
     2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            7 NKP 9
Qу
              j | |
            8 NKP 10
Db
RESULT 49
AAR67036
     AAR67036 standard; peptide; 11 AA.
ΙD
XX
AC
    AAR67036;
XX
DT
     25-MAR-2003
                  (revised)
DT
     28-JUN-1995
                  (first entry)
XX
DΕ
     Chemotactic peptide (CP-alphaPI1), contg. proline brackets.
XX
KW
     Chemotactic peptide; alpha-1 protease inhibitor; treatment;
KW
     enhance body defence mechanism; constrained conformation;
KW
     interaction site; mimic.
XX
OS
     Synthetic.
XX
PN
    WO9425482-A1.
XX
PD
     10-NOV-1994.
XX
PF
     21-APR-1994;
                    94WO-US004294.
XX
PR
                    93US-00051741.
    23-APR-1993;
```

```
PR
     29-OCT-1993;
                    93US-00143364.
XX
PA
     (EVAN/) EVANS H J.
PA
     (KINI/) KINI R M.
XX
PΙ
     Evans HJ, Kini RM;
XX
DR
     WPI; 1994-358186/44.
XX
     Peptide homologue or analogue with constrained conformation - has proline
PT
PT
     residues flanking the interaction site to impart greater, or more stable,
PT
     biological activity.
XX
PS
     Example 2; Page 24; 57pp; English.
XX
CC
     AAR67034-37 are chemotactic peptides derived from naturally occuring
CC
     polypeptides that contain proline or proline/cysteine brackets. These
CC
     peptides are shortened to form fragments that contain one or more
CC
     interaction sites of interest. AAR67036-7 originate from alpha-1 protease
CC
     inhibitor and attracts neutrophils and macrophages and hence will be
CC
     useful in enhancing body defence mechanisms at a required site. Dose is 5
CC
     -100 nanomoles. The data collected demonstrates that interaction sites
CC
     possess activity when present in a polypeptide that differs from the
CC
     native form. Inclusion of conformation-constraining moieties can have
CC
     desirable effects on an interaction site. (Also see AAR67011-33 and
CC
     AAR67038-152 for analogues of other biologically active peptides contq.
CC
     an interaction site flanked by conformation constraining qps., eq. RGD
CC
     peptides.) (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            7 NKP 9
Qy
              III
            7 NKP 9
Db
RESULT 50
AAR50563
     AAR50563 standard; peptide; 11 AA.
XX
AC
     AAR50563;
XX
DT
     25-MAR-2003
                 (revised)
DT
     18-OCT-1994
                 (first entry)
XX
DE
     Amphiphillic peptide #112.
XX
KW
     Amphiphilic; ion forming; gynaecological malignancy; magainin; PGLa; XPF;
KW
     CPF; cecropin; sarcotoxin; melittin; apidaecin; defensin;
KW
     major basic protein; eosinophils; uterine; cervical; cancer;
KW
     bacterial permeability increasing protein; ovarian; stage IC.
XX
OS
     Synthetic.
```

```
XX
     WO9405313-A1.
PΝ
XX
     17-MAR-1994.
PD
XX
     16-AUG-1993;
                    93WO-US007798.
PF
XX
PR
     31-AUG-1992;
                    92US-00937462.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Jacob LS, Maloy WL,
                           Baker MA;
XX
     WPI; 1994-100851/12.
DR
XX
     Treating gynaecological tumours with amphiphilic peptide(s) - which form
PT
     ion channels, e.g. magainin or PGLa peptide(s), partic. for treating
PT
PT
     ovarian, uterine or cervical cancers.
XX
PS
     Disclosure; Page 116; 130pp; English.
XX
CC
     The sequences given in AAR50452-568 represent amphiphilic, ion forming
CC
     peptides which may be used to treat gynaecological malignancy. These
CC
     peptides are based on magainin, PGLa, XPF or CPF, a cecropin, a
     sarcotoxin, melittin, an apidaecin, a defensin, major basic protein of
CC
CC
     eosinophils or a bacterial permeability increasing protein. These
CC
     peptides are esp. used to treat ovarian, esp. stage IC, uterine or
CC
     cervical cancers. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            1 AKK 3
              Db
            1 AKK 3
RESULT 51
AAR55987
     AAR55987 standard; peptide; 11 AA.
XX
AC
     AAR55987;
XX
DT
     25-MAR-2003
                  (revised)
DT
     19-DEC-1994
                  (first entry)
XX
DE
     Ion channel forming peptide.
XX
KW
     Ion channel forming peptide; tumour; skin disease; mallignancy; melanoma;
     carcinoma; basal cell; squamous cell; magainin; PGLa; CPF peptides;
KW
KW
     cercopins; sarcotoxin; mellitin; apidocin; defensins;
KW
     major basic protein; bacteria-permeability increasing protein; perforin.
XX
OS
     Synthetic.
```

```
XX
     WO9412206-A1.
PN
XX
PD
     09-JUN-1994.
XX
     03-DEC-1993;
                    93WO-US011885.
PF
XX
PR
     03-DEC-1992;
                    92US-00984957.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Jacob LS, Maloy WL;
XX
DR
     WPI; 1994-199965/24.
XX
PT
     Treating skin cancer with ion channel forming peptide(s) - e.g.
     magainins, mellitin etc., specifically for treating melanoma.
PT
XX
PS
     Disclosure; Page 121; 136pp; English.
XX
CC
     The peptide is used to treat dermatological malignancies. It may be used
CC
     to treat especially melanoma but also basal cell and squamous cell
CC
     carcinomas. It can be used together with an ion which also
CC
     inhibits/prevents growth of the target cell. Peptides used for such
CC
     therapy include magainin, PGLa or CPF peptides; cercopins, sarcotoxins,
     mellitin, apidocins, defensins, major basic protein of eosimophils;
CC
CC
     bacteria-permeability increasing protein and perforin. See also AAQ55876-
CC
     Q55997. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
             3; Conservative 0; Mismatches
                                                 0; Indels
 Matches
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qy
              111
Db
            1 AKK 3
RESULT 52
AAR59065
     AAR59065 standard; peptide; 11 AA.
XX
AC
    AAR59065;
XX
DT
     25-MAR-2003
                  (revised)
DT
     21-APR-1995
                  (first entry)
XX
DE
     Cancer treating, amphiphilic ion-channel forming peptide.
XX
KW
     Amphiphilic ion-channel forming peptide; cancer treatment;
KW
     protease inhibitors.
XX
OS
     Synthetic.
XX
PN
    WO9419369-A1.
```

```
XX
PD
     01-SEP-1994.
XX
PF
     22-FEB-1994;
                    94WO-US002121.
XX
PR
     26-FEB-1993;
                    93US-00021607.
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
     Herlyn M, Jacob LS, Maloy WL;
XX
DR
     WPI; 1994-294258/36.
XX
PT
     Treating cancerous growths - by administering biologically active
PΤ
     peptide(s) and protease inhibitors.
XX
     Claim 2; Page 106; 124pp; English.
PS
XX
CC
     AAR59060 to AAR59066 are a group of amphiphilic ion-channel forming
CC
     peptides conforming to the same generic sequence. Used in combination
CC
     with one or more protease inhibitors and other amphiphilic ion-channel
CC
     forming peptides or proteins; they are effective in the treatment of
CC
     cancerous growths. In particular during surgery and radiation treatment
CC
     they may be useful in ihibiting, preventing and/or destroying potential
     "loose" malignant cells capable of colonising other sites. (Updated on 25
CC
CC
     -MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            1 AKK 3
              111
Db
            1 AKK 3
RESULT 53
     AAR71762 standard; peptide; 11 AA.
XX
AC
     AAR71762;
XX
DT
     25-MAR-2003
                 (revised)
DT
     15-MAY-1995
                  (first entry)
XX
     Neurotensin receptor fluorescent probe.
DE
XX
ΚW
     Neurotensin; NT; receptor; probe; fluorescent.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Modified-site
FT
FT
                     /note= "Tyr or D-Tyr; and this residue is N-acylated with
                     fluorescent label. See CC below. Also this amino acid can
FT
```

```
FT
                     be substituted by Lys or Orn."
XX
PN
     EP606804-A2.
XX
     20-JUL-1994.
PD
XX
     27-DEC-1993:
                    93EP-00403185.
PF
XX
     30-DEC-1992;
PR
                    92CA-02086453.
XX
     (UYMC-) UNIV MCGILL.
PΑ
XX
     Beaudet A, Faure M, Gaudreau P;
PΙ
XX
DR
     WPI; 1994-226757/28.
XX
     New forescent markers for neurotensin receptors - useful for in vitro
PT
PT
     labelling of neurotensin receptors on cell surface and to isolate
PT
     neurotensin-receptor expressing cells.
XX
     Claim 2; Page 5; 19pp; English.
PS
XX
CC
     The invention concerns highly sensitive fluorescent probes which allow
CC
     for rapid and precise characterisation of neurotensin receptor binding
CC
     properties on whole cells. The probes are of formula R1-C(=X)-R in which
CC
     R1 is is a fluorophore chosen from fluorescein, rhodamine, Blue
CC
     fluorescent and Texas red; X is oxygen or sulphur; and R is a neurotensin
CC
     -type polypeptide sequence containing the core sequence Arg-Arg-Pro-Tyr-
     Ile-Leu or Arg-Arg-Pro-Trp-Ile-Leu. Specific sequences are given in
CC
CC
     AAR71745 - AAR71772. The R1-CX- acyl group is linked to the peptide via
CC
     the N-terminus in position 1. The N-terminal amino acid may also be
     substd. by Lys or Orn. The present sequence represents one of the claimed
CC
     peptide sequences for R. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
            3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            7 NKP 9
Qу
              3 NKP 5
Db
RESULT 54
AAR71761
     AAR71761 standard; peptide; 11 AA.
ID
XX
AC
     AAR71761;
XX
DT
     25-MAR-2003 (revised)
DT
     15-MAY-1995 (first entry)
XX
     Neurotensin receptor fluorescent probe.
DE
XX
     Neurotensin; NT; receptor; probe; fluorescent.
KW
```

```
XX
OS
     Synthetic.
XX
FΗ
                     Location/Qualifiers
     Kev
     Modified-site
FT
                     /note= "Tyr or D-Tyr; and this residue is N-acylated with
FT
                     fluorescent label. See CC below. Also this amino acid can
FT
тч
                     be substituted by Lys or Orn."
XX
PN
     EP606804-A2.
XX
PD
     20-JUL-1994.
XX
PF
     27-DEC-1993;
                    93EP-00403185.
XX
                    92CA-02086453.
PR
     30-DEC-1992;
XX
PA
     (UYMC-) UNIV MCGILL.
XX
PΙ
     Beaudet A, Faure M, Gaudreau P;
XX
DR
     WPI; 1994-226757/28.
XX
PT
     New forescent markers for neurotensin receptors - useful for in vitro
PT
     labelling of neurotensin receptors on cell surface and to isolate
PT
     neurotensin-receptor expressing cells.
XX
PS
     Claim 2; Page 5; 19pp; English.
XX
CC
     The invention concerns highly sensitive fluorescent probes which allow
CC
     for rapid and precise characterisation of neurotensin receptor binding
CC
     properties on whole cells. The probes are of formula R1-C(=X)-R in which
CC
     R1 is is a fluorophore chosen from fluorescein, rhodamine, Blue
CC
     fluorescent and Texas red; X is oxygen or sulphur; and R is a neurotensin
     -type polypeptide sequence containing the core sequence Arg-Arg-Pro-Tyr-
CC
     Ile-Leu or Arg-Arg-Pro-Trp-Ile-Leu. Specific sequences are given in
CC
     AAR71745 - AAR71772. The R1-CX- acyl group is linked to the peptide via
CC
     the N-terminus in position 1. The N-terminal amino acid may also be
CC
CC
     substd. by Lys or Orn. The present sequence represents one of the claimed
CC
     peptide sequences for R. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                        27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
                                                                  0;
            3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
            7 NKP 9
Qу
              III
Db
            3 NKP 5
RESULT 55
AAR56948
ΙD
    AAR56948 standard; peptide; 11 AA.
XX
AC
    AAR56948;
```

```
XX
DT
     25-MAR-2003
                  (revised)
DT
     17-MAR-1995
                  (first entry)
XX
DE
     Peptide which neutralises bacterial endotoxin.
XX
KW
     septic shock; bacterial endotoxin; lipopolysaccharide; LPS;
KW
     gram negative bacteria; conjugate moiety; septicemia; neutralising;
KW
     longer activity; polyvinylpyrrolidone; dextran; hetastarch;
     polyvinyl alcohol; ion-channel forming; amphiphilic.
KW
XX
OS
     Synthetic.
XX
PN
     WO9413697-A1.
XX
PD
     23-JUN-1994.
XX
PF
     06-DEC-1993;
                    93WO-US011841.
XX
PR
     07-DEC-1992;
                    92US-00987443.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Hendi M,
               Rao M,
                       Williams TJ;
XX
DR
    WPI; 1994-217804/26.
XX
     New conjugates of bioactive amphiphilic peptide(s) and conjugate moiety -
PT
PT
     are useful for treatment of septic shock.
XX
PS
     Disclosure; Page 115; 141pp; English.
XX
CC
     Septic shock is often due to the body's reaction to foreign
CC
     lipopolysaccharide (LPS). The compounds of the invention neutralise
CC
     bacterial endotoxins without neutralising essential proteins in the
     plasma of patients, eg.heparins. They also have longer duration of
CC
     activity than unconjugated peptides. In general peptides such as this are
CC
     ion-channel forming peptides. The compounds are biologically active
CC
CC
     peptides linked to a conjugate moiety, eg. carbohydrates, proteins,
CC
     polyvinylpyrrolidone, polyalkylene glycols and polyvinyl alcohols. The
     conjugate moiety may be linked at the C- or N-terminal or internally of
CC
CC
     the peptide. AAR55591-631 and AAR56879-957 are examples of these peptide-
CC
     conjugate moiety compounds (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%;
                                  Score 3; DB 2;
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              \mathbf{I}
            1 AKK 3
Db
```

```
AAR50448 standard; peptide; 11 AA.
ID
XX
     AAR50448;
AC
XX
DT
     25-MAR-2003
                  (revised)
DT
     17-OCT-1994
                 (first entry)
XX
DΕ
     Amphiphilic peptide #113.
XX
KW
     Amphiphilic peptide; aprotic organic solvent; alcohol; antitumour;
     antibiotic; antimicrobial; antifungal; antiparasitic; anticancer;
KW
     antiviral; human; animal; plant; ion-channel; forming peptide.
KW
XX
OS
     Synthetic.
XX
PN
    WO9405308-A1.
XX
     17-MAR-1994.
PD
XX
                    93WO-US007694.
PF
     13-AUG-1993;
XX
     28-AUG-1992;
                    92US-00936504.
PR
XX
     (MAGA-) MAGAININ PHARM INC.
PΑ
XX .
PΙ
    Williams JI;
XX
DR
     WPI; 1994-100846/12.
XX
PT
     Purifying amphiphilic protein or peptide by solvent extn. - partic. for
PT
     recombinant, ion-channel forming peptide(s) such as magainins, avoids use
PT
     of chaotropic agents.
XX
     Disclosure; Page 124; 135pp; English.
PS
XX
     The sequences given in AAR50336-451 are amphiphilic peptides which were
CC
     isolated by the method of the invention. A material containing
CC
     amphiphilic peptides such as these, was treated with a mixt. of aprotic
CC
CC
     organic solvent and alcohol to form a single miscible solution. This
     solution was then treated with a aqueous solution to form an aqueous
CC
CC
     phase solution containing the peptides and an organic solvent phase, and
     the peptides were isolated from the aqueous phase. The isolated peptides
CC
     may be useful as antibiotic, antimicrobial, antifungal, antiparasitic,
CC
     antitumour, anticancer, and/or antiviral agents for treatment of humans,
CC
     animals or plants. These peptides are esp. ion-channel forming peptides
CC
     which enable biologically active ions to enter cells. (Updated on 25-MAR-
CC
CC
     2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                                                                              0;
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
             3; Conservative
Qy
            1 AKK 3
              +
            1 AKK 3
Db
```

```
AAR82716
     AAR82716 standard; peptide; 11 AA.
XX
AC
     AAR82716;
XX
DT
     11-APR-1996 (first entry)
XX
DE
     Shrimp tropomyosin Asp N peptide (residues 258-269).
XX
     Tropomyosin; allergen; IqE binding epitope; allergy; Pen i I; SA-II;
KW
KW
     crustacean; antiallergic; diagnosis; hypersensitivity.
XX
OS
     Artemia salina.
XX
PN
     US5449669-A.
XX
     12-SEP-1995.
PD
XX
PF
     10-NOV-1993;
                    93US-00149809.
XX
PR
     10-NOV-1993;
                    93US-00149809.
XX
PΑ
     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
     Roa PVS, Metcalfe DD, Martin BM;
PI
XX
DR
     WPI; 1995-327712/42.
XX
PT
     Antigenic and allergenic peptide(s) from shrimp tropomyosin and derivs. -
     used to diagnose and treat allergies to crustacea, esp. for
PT
PT
     desensitisation.
XX
PS
     Example 3; Col 7-8; 19pp; English.
XX
     This Asp N peptide, a fragment of the shrimp major thermostable allergen
CC
CC
     of 34 kDa (tropomyosin), was generated in order to compare amino acid
CC
     sequences of Pen i I with the deduced amino acid sequence of the alpha-
CC
     chain of Drosophila melanogaster tropomyosin
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
                                                                              0;
             3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            3 KEK 5
Qу
              111
            6 KEK 8
Db
RESULT 58
AAW21220
ID
     AAW21220 standard; peptide; 11 AA.
XX
```

RESULT 57

ACAAW21220; XX DT29-JUL-1997 (first entry) XX Farnesyl synthetase derived signal oligopeptide #20. DE XX Hydrophilic; signal oligopeptide; hydrophilicity maxima; vaccine; SIV; KW KW competitive inhibitor; feedback regulator; synthesis; gastrin precursor; charge; polarity; farnesyl synthetase; plasminogen activator inhibitor 1; KW hydroxymethylglutaryl coenzyme A reductase; glucagon precursor; rhesus; KW KW qonadoliberin precursor; plasminogen activator inhibitor 2; prorenin; KW Alzheimer amyloid A4; corticotropin releasing factor binding protein; KW apolipoprotein E; herpes virus 1 glycoprotein B; HSV1; human; OMVVS; KW herpes virus 2 glycoprotein B; HSV2; collagenase; apolipoprotein A; KW Treponema pallidum membrane protein; TMPA; islet amyloid polypeptide; KW fibroblast MMP1; schistosoma elastase precursor; schistosomin; hepatitis delta antigen; rev protein; HIV; VILV; angiotensinogen. KW XXOS Homo sapiens. XX PNWO9519568-A1. XX PD20-JUL-1995. XX PF12-JAN-1995; 95WO-US000575. XX PR 14-JAN-1994; 94US-00182248. XX PA (RATH/) RATH M. XX PΙ Rath M; XX WPI; 1995-263953/34. DR XX Identifying signal oligopeptide(s) in protein sequence(s) - shown as PTPΤ regions of max. hydrophilicity, used in modulating communication between PTprotein(s). XX PS Claim 5; Page 26; 88pp; English. XX The sequences given in AAW21201-560 represent hydrophilic signal oligo-CCCCpeptides. These signal oligopeptides are localised on the surface of the protein and are represented by the hydrophilicity maxima of the protein. CC CC These peptides are enriched in charged amino acids arranged with neutral spacer amino acids. The specific signal character of these oligopeptides CC is determined by a characteristic combination of conformation and charge CCwithin the signal sequence. These oligopeptides may be used as vaccines CC CCin the treatment of human disease, as competitive inhibitors to prevent CCor reduce the metabolic action or interaction of a selected protein by blocking its specific signal sequences, or as therapeutic agents to CCfunction as feedback regulators to reduce synthesis rate of a selected CC protein. These peptides may be modified by omitting one or more amino CCacids at the N- and/or C-terminal, by substituting one or more amino CC

acids without consideration of charge and polarity, by substituting one

or more amino acids with amino acid residues with similar charge and/or polarity, by omitting one or more amino acids or a combination of these

CC

CC XX

```
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8e+03;
             3; Conservative
                                                                  0; Gaps
                                                                              0;
  Matches
                                 0; Mismatches
                                                    0; Indels
            1 AKK 3
QУ
              \perp
            9 AKK 11
Πb
RESULT 59
AAR76917
     AAR76917 standard; peptide; 11 AA.
XX
AC
     AAR76917;
XX
DT
     08-MAR-1996 (first entry)
XX
DE
     Thymosin alpha-1 peptide analogue #23.
XX
     Thymosin alpha-1; analogue; immune system modulator; alpha-interferon;
ΚW
     gamma-interferon; macrophage migration inhibitory factor; T-cell marker;
KW
     interleukin-2 receptor; helper T-cell; solid phase synthesis;
KW
     immunodeficiency; therapy; AIDS; HIV; immunodepravation.
KW
XX
OS
     Synthetic.
XX
FΗ
                     Location/Qualifiers
     Key
FT
     Modified-site
                     /note= "optionally amidated Pro or amidated Gly"
FT
XX
     WO9520602-A2.
PN
XX
     03-AUG-1995.
PD
XX
                    95WO-US000617.
PF
     18-JAN-1995;
XX
PR
     28-JAN-1994;
                    94US-00188232.
XX
     (ALPH-) ALPHA 1 BIOMEDICALS INC.
PA
XX
PΙ
     Wang S;
XX
     WPI; 1995-275412/36.
DR
XX
     New thymosin alpha-1 peptide analogues - for the treatment of
PT
     immunodeficiency diseases and the reconstitution of immune functions in
PT
PT
     immuno-depressed patients.
XX
PS
     Claim 7; Page ?; 24pp; English.
XX
     The sequences represented by AAR76895-R76935 are thymosin alpha-1
CC
     analogues. Thymosin alpha-1 is an immune system modulator. Thymosin alpha
CC
     -1 activity includes, stimulation of alpha- and gamma-interferon
CC
     production, increasing macrophage migration inhibitory factor production,
CC
     inducing expression of T-cell markers (including interleukin-2
CC
```

```
receptors), and improving helper T-cell activity. These sequences
CC
     function like natural thymosin alpha-1, and are easy to produce. These
CC
     sequences were synthesised by solid phase synthesis on a 4-
CC
     methylbenzhydrylamine resin. The peptides were cleaved from this resin
CC
     using trifluoromethane sulfonic acid (TFS). These sequences can be used
CC
     to reconstitute immune functions in immunodeprived and immunodepressed
CC
     patients. They can also be used in the treatment of immunodeficiency
CC
CC
     diseases
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0;
                                                                     Gaps
                                                                              0;
            2 KKE 4
Qу
              111
            1 KKE 3
Db
RESULT 60
AAR78790
     AAR78790 standard; peptide; 11 AA.
XX
AC
     AAR78790;
XX
DT
     25-MAR-2003
                 (revised)
     23-NOV-1995
                 (first entry)
DT
XX
     Rac1 (127-137) peptide sequence.
DE
XX
     superoxide inhibition; phagocyte; GTP-binding; G protein; Rac;
KW
     mastoparan; antiinflammatory; inflammation; ICS4; GAP.
KW
XX
OS
     Synthetic.
XX
PN
     WO9503819-A1.
XX
PD
     09-FEB-1995.
XX
                    94WO-US008631.
PF
     29-JUL-1994;
XX
PR
     02-AUG-1993;
                    93US-00102944.
PR
     15-NOV-1993;
                    93US-00156552.
XX
     (SCRI ) SCRIPPS RES INST.
PA
XX
PΙ
     Bokoch GM,
                 Curnutte JT;
XX
     WPI; 1995-082027/11.
DR
XX
     New peptide(s) inhibiting super:oxide prodn. in phagocyte(s) - derived
PT
     e.g. from GTP binding proteins or mastoparan, useful for inhibiting
PT
     inflammation, e.g. in cases of auto:immune disease, gout, asthma, etc.
PT
XX
PS
     Claim 5; Page 93; 107pp; English.
XX
```

```
acids in length is claimed, the peptide being capable of inhibiting
CC
CC
     superoxide prodn. in phagocytic cells and therefore being useful in
     inhibiting inflammation and treating inflammatory disorders such as
CC
     autoimmune diseases, gout, ARDS, asthma, myocardial infarction and
CC
     various dermatological disorders. Preferably the protein is a low mol.
CC
CC
     wt. GTP binding protein (LMWG), a mastoparan, or an ICS4 peptide. The
CC
     present sequence is a specifically claimed example of a preferred
CC
    peptide. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            3 KEK 5
Qу
              \mathbf{I}
Db
            4 KEK 6
RESULT 61
AAR86397
     AAR86397 standard; peptide; 11 AA.
XX
AC
    AAR86397;
XX
DT
     19-APR-1996 (first entry)
XX
DE
     Soybean-derived phagocytotis-promoting immunostimulatory peptide 3.
XX
KW
     Immunostimulatory peptide; phagocytosis; active oxygen; soybean.
XX
OS
     Soybean.
XX
     JP07224093-A.
PN
XX
PD
     22-AUG-1995.
XX
PF
     11-FEB-1994;
                    94JP-00037707.
XX
PR
     11-FEB-1994;
                    94JP-00037707.
XX
PA
     (HOHN ) HOHNEN CORP.
XX
DR
    WPI; 1995-331084/43.
XX
PT
     Novel peptide(s) and immuno:stimulatory compsn. contg. them - promote
PT
    phagocytosis and active oxygen prodn.
XX
PS
     Claim 1; Page 2; 8pp; Japanese.
XX
CC
     Peptides AAR86395-R86404 are novel immunostimulatory peptides that
CC
     promote phagocytosis as well as the prodn. of active oxygen. The peptides
CC
     were isolated from soybeans by conventional chromatography, or were
CC
     synthesised by Fmoc chemistry
XX
```

An optionally substituted, non-toxic peptide of not more than 40 amino

```
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
 Matches
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            7 NKP 9
Qy
              +111
            9 NKP 11
Dh
RESULT 62
AAR90259
ID
    AAR90259 standard; peptide; 11 AA.
XX
AC
    AAR90259;
XX
DT
     10-JUL-1996 (first entry)
XX
     Ion-channel forming peptide #111 with lipophilic N-terminal group.
DΕ
XX
     Ion channel forming peptide; lipophilic; N-terminal modification;
KW
    magainin; inhibition; cell growth; viral replication; ionophore;
KW
    membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
KW
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
    Modified-site
                     /note= "N-terminal amino group is mono- or di-substd. by
FT
FT
                     lipophilic moiety, esp. octanoyl"
XX
    WO9519370-A1.
PN
XX
PD
     20-JUL-1995.
XX
PF
                    95WO-US000714.
     18-JAN-1995;
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari U, Williams TJ, Mclane M;
XX
DR
    WPI; 1995-263826/34.
XX
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
     gps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
PT
     antitumour agents.
XX
PS
     Claim 25; Page 108; 139pp; English.
XX
     The present peptide is a specific example corresp. to a highly generic
CC
     formula for ion channel forming peptides (ionophores). These ionophores
CC
CC
     are known to have a broad range of potent antibiotic activity against
```

microorganisms including gram-positive and gram-negative bacteria, fungi,

```
viruses, protozoa and parasites. N-terminal modification (pref. mono-
CC
     substn. by octanoyl) to produce an ion-channel forming peptide having a
CC
     lipophilic N-terminus increases the biological activity of the peptides
CC
CC
     against target cells, viruses and virally-infected cells, compared to
     peptides substd. with an acetyl group at the N-terminus. Compositions
CC
     comprising the peptides with lipophilic modifications are claimed for
CC
     inhibiting growth of a target cell, virus or virally-infected cell
CC
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8e+03;
                                                   0; Indels
  Matches
             3; Conservative
                              0; Mismatches
                                                                  0; Gaps
                                                                              0;
Qу
            1 AKK 3
              III
            1 AKK 3
Db
RESULT 63
AAR91788
     AAR91788 standard; peptide; 11 AA.
XX
AC
     AAR91788;
XX
DT
     11-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #123 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
KW
XX
     Synthetic.
OS
XX
                     Location/Qualifiers
FH
     Key
FT
     Modified-site
                     /note= "N-terminal amino group is mono-substd. by
FT
FT
                     octanoyl"
FT
     Modified-site
FT
                     /note= "C-terminal amide"
XX
PN
     WO9519370-A1.
XX
PD
     20-JUL-1995.
XX
                    95WO-US000714.
PF
     18-JAN-1995;
XX
                    94US-00184462.
PR
     18-JAN-1994;
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari U, Williams TJ, Mclane M;
XX
DR
     WPI: 1995-263826/34.
XX
```

```
Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
     qps. - useful e.q. as antiviral, antibacterial, antiparasitic or
PT
     antitumour agents.
PT
XX
     Example 1; Page 111; 139pp; English.
PS
XX
CC
     Various ion channel forming peptides (ionophores) in C-terminal amide
CC
     form were modified by N-terminal substn. with a lipophilic group and then
     tested for activity against S.aureus ATCC 25923 (S), P.aeruginosa ATCC
CC
     27853 (P), E.coli ATCC 25922 (E) and C.albicans (C). Results indicated
CC
CC
     that when a biologically active peptide is substd. with a lipophilic
CC
     moiety, the peptide has increased activity against a range of
     microorganisms. Compositions comprising such peptides with lipophilic
CC
     modifications are claimed for inhibiting growth of a target cell, virus
CC
CC
     or virally-infected cell. Minimum inhibitory concentrations (in
CC
     microgram/ml) for the present peptide against S, P, E and C,
CC
     respectively, were: 32, 16, 32 and 32
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                                                                              0;
                              0; Mismatches
                                                    0; Indels
                                                                    Gaps
  Matches
             3; Conservative
            1 AKK 3
Qy
              | \cdot |
            7 AKK 9
Db
RESULT 64
AAR91787
     AAR91787 standard; peptide; 11 AA.
XX
AC
     AAR91787;
XX
DT
     11-JUL-1996 (first entry)
XX
     Ion-channel forming peptide #122 with lipophilic N-terminal group.
DΕ
XX
     Ion channel forming peptide; lipophilic; N-terminal modification;
KW
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
KW
XX
     Synthetic.
OS
XX
                     Location/Qualifiers
FH
     Key
FT
     Modified-site
                     /note= "N-terminal amino group is mono-substd. by
FT
                     octanoyl"
FT
FT
     Modified-site
                     /note= "C-terminal amide"
FT
XX
     WO9519370-A1.
PN
XX
PD
     20-JUL-1995.
XX
```

```
18-JAN-1995;
                    95WO-US000714.
PF
XX
     18-JAN-1994;
                    94US-00184462.
PR
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari U, Williams TJ, Mclane M;
XX
DR
     WPI; 1995-263826/34.
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
     qps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
     antitumour agents.
XX
PS
     Example 1; Page 111; 139pp; English.
XX
     Various ion channel forming peptides (ionophores) in C-terminal amide
CC
CC
     form were modified by N-terminal substn. with a lipophilic group and then
     tested for activity against S.aureus ATCC 25923 (S), P.aeruginosa ATCC
CC
     27853 (P), E.coli ATCC 25922 (E) and C.albicans (C). Results indicated
CC
     that when a biologically active peptide is substd. with a lipophilic
CC
     moiety, the peptide has increased activity against a range of
CC
     microorganisms. Compositions comprising such peptides with lipophilic
CC
     modifications are claimed for inhibiting growth of a target cell, virus
CC
     or virally-infected cell. Minimum inhibitory concentrations (in
CC
     microgram/ml) for the present peptide against S, P, E and C,
CC
     respectively, were: 32, 32, 64 and 64
CC
XX
SQ
     Sequence 11 AA;
                           27.3%; Score 3; DB 2;
                                                    Length 11;
  Query Match
                           100.0%; Pred. No. 8e+03;
  Best Local Similarity
             3; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                       Gaps
                                                                                0;
            1 AKK 3
Qу
              \mathbf{I} \mathbf{I} \mathbf{I}
            7 AKK 9
Db
RESULT 65
AAR92106
ID
     AAR92106 standard; peptide; 11 AA.
XX
AC
     AAR92106;
XX
DT
     19-MAY-1996 (first entry)
XX
DE
     Human RIZ cr2 fragment.
XX
     Retinoblastoma protein-interacting zinc finger; RIZ; cell proliferation;
KW
     tumour; cancer; neuroblastoma; melanoma; diagnosis; therapy;
KW
KW
     transcription.
XX
OS
     Homo sapiens.
XX
PN
     W09606168-A2.
XX
```

```
29-FEB-1996.
PD
XX
PF
     18-AUG-1995;
                    95WO-US010574.
XX
PR
     18-AUG-1994;
                    94US-00292683.
                    95US-00399411.
     06-MAR-1995;
PR
XX
PΑ
     (LJOL-) LA JOLLA CANCER RES FOUND.
XX
PΙ
     Huang S;
XX
DR
     WPI; 1996-151371/15.
XX
     Nucleic acid encoding mammalian retinoblastoma protein-interacting zinc
PT
PT
     finger - used to identify cell proliferation modulating agents for
     treatment of tumours, esp. neuroblastoma and melanoma, also used for
PT
PT
     cancer diagnosis.
XX
     Claim 19; Page 102; 142pp; English.
PS
XX
     Active fragments of mammalian retinoblastoma protein-interacting zinc
CC
     finger (RIZ), such as rat RIZ cr2 fragment (AAR92105) and human RIZ cr2
CC
     fragment (AAR92106), bind to retinoblastoma, interact with transcription
CC
     factors and can be involved in regulating transcription. They are
CC
     produced by recombinant DNA methods, by peptide synthesis or by enzymatic
CC
     cleavage of RIZ. RIZ or its active fragments (see also AAR92107-09) can
CC
     be obtd. by recombinant DNA methods, and used to identify agents that
CC
     modulate cell proliferation and thereby treat tumour growth or
CC
CC
     neurodegenerative disorders
XX
SO
     Sequence 11 AA;
                          27.3%;
                                  Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                                 0; Mismatches
                                                   0; Indels
             3; Conservative
  Matches
            4 EKP 6
Qу
              111
            6 EKP 8
Db
RESULT 66
AAR92105
     AAR92105 standard; peptide; 11 AA.
XX
AC
     AAR92105;
XX
DT
     19-MAY-1996 (first entry)
XX
DE
     Rat RIZ cr2 fragment.
XX
     Retinoblastoma protein-interacting zinc finger; RIZ; cell proliferation;
KW
     tumour; cancer; neuroblastoma; melanoma; diagnosis; therapy;
KW
KW
     transcription.
XX
OS
     Rattus sp.
XX
```

```
PN
    W09606168-A2.
XX
PD
     29-FEB-1996.
XX
    18-AUG-1995;
                    95WO-US010574.
PF
XX
     18-AUG-1994;
                    94US-00292683.
PR
     06-MAR-1995;
                    95US-00399411.
PR
XX
     (LJOL-) LA JOLLA CANCER RES FOUND.
PΑ
XX
ΡI
    Huang S;
XX
DR
     WPI; 1996-151371/15.
XX
    Nucleic acid encoding mammalian retinoblastoma protein-interacting zinc
PT
     finger - used to identify cell proliferation modulating agents for
PT
     treatment of tumours, esp. neuroblastoma and melanoma, also used for
PT
PT
     cancer diagnosis.
XX
     Claim 18; Page 102; 142pp; English.
PS
XX
     Active fragments of mammalian retinoblastoma protein-interacting zinc
CC
     finger (RIZ), such as rat RIZ cr2 fragment (AAR92105) and human RIZ cr2
CC
     fragment (AAR92106), bind to retinoblastoma, interact with transcription
CC
     factors and can be involved in regulating transcription. They are
CC
     produced by recombinant DNA methods, by peptide synthesis or by enzymatic
CC
     cleavage of RIZ. RIZ or its active fragments (see also AAR92107-09) can
CC
     be obtd. by recombinant DNA methods, and used to identify agents that
CC
     modulate cell proliferation and thereby treat tumour growth or
CC
CC
     neurodegenerative disorders
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                                                                              0;
             3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
            4 EKP 6
Qу
              +111
            6 EKP 8
Db
RESULT 67
AAR85318
     AAR85318 standard; peptide; 11 AA.
ID
XX
АC
     AAR85318;
XX
DT
     25-MAR-2003
                  (revised)
DT
     19-AUG-1996
                  (first entry)
XX
     Human retinoic acid receptor RAR-beta (human liver HAP) peptide-2.
DE
XX
     HAP; liver; hepatoma; retinoic acid receptor; RAR-beta; psoriasis;
KW
     atherosclerosis; rheumatoid arthritis.
KW
XX
```

```
Homo sapiens.
OS
XX
     US5468617-A.
PN
XX
PD
     21-NOV-1995.
XX
                    94US-00190555.
     02-FEB-1994;
PF
XX
PR
     16-DEC-1987;
                    87US-00133687.
PR
     17-DEC-1987;
                    87US-00134130.
     20-JUN-1988;
                    88US-00209009.
PR
                    88US-00278136.
     30-NOV-1988;
PR
                    89US-00330405.
PR
     30-MAR-1989;
                    91US-00751612.
     21-AUG-1991;
PR
                    92US-00860577.
     30-MAR-1992;
PR
                    92US-00989902.
PR
     11-DEC-1992;
                    93US-00095706.
PR
     22-JUL-1993;
XX
     (TIOL/) TIOLLAIS P.
PA
     (DEJE/) DEJEAN A.
PA
     (KRUS/) KRUST A.
PA
     (PETK/) PETKOVICH M.
PΑ
     (DTHE/) BLAUDIN DE THE H.
PA
     (MARC/) MARCHIO A.
PA
     (BRAN/) BRAND N.
PA
     (CHAM/) CHAMBON P.
PA
XX
PΙ
     Brand N, Chambon P, Blaudin De The H, Marchio A, Dejean A;
     Petkovich M, Krust A, Tiollais P;
PI
XX
DR
     WPI; 1996-010094/01.
XX
     Method for screening for retinoic acid receptor-beta (ant)agonists -
PT
     useful for blood testing and for treatment of rheumatoid arthritis,
PT
PT
     psoriasis, atherosclerosis etc.
XX
     Claim 7; Col 39-40; 35pp; English.
PS
XX
     This RAR-beta peptide-2 fragment is part of a protein which may be
CC
CC
     expressed recombinantly in bacterial host cells such as Escherichia coli
     TG-1. The protein, which is free from human, blood-derived protein, forms
CC
     a complex with an agonist or antagonist. The protein may be used in a
CC
     novel method for assaying a fluid for the presence of an agonist or
CC
     antagonist to retinoic acid receptor, RAR-beta. (Updated on 25-MAR-2003
CC
     to correct PF field.)
CC
XX
     Sequence 11 AA;
SQ
                           27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                                                                               0;
                                                    0; Indels
                                                                   0;
                                                                       Gaps
             3; Conservative
                               0; Mismatches
  Matches
            2 KKE 4
Qy
              111
            7 KKE 9
Db
```

```
RESULT 68
AAW18499
ID
     AAW18499 standard; peptide; 11 AA.
XX
AC
     AAW18499;
XX
DT
     19-FEB-1998 (first entry)
XX
DE
     Amino-terminal peptide 1 associated with novel helicase.
XX
KW
     Nucleic acid binding protein; helicase; leflunomide; assaying;
KW
     4-(N-(4-trifluoromethylphenyl)-5-methyl-isoxazole; identification;
KW
     anticancer; antiatherosclerotic; immunosuppressant; sequencing;
     antiinflammatory; antiviral; antifungal; antibacterial; treatment;
KW
KW
     Alzheimer's disease; cancer; rheumatism; arthrosis; determination;
KW
     atherosclerosis; osteoporosis; acute infection; chronic infection;
     autoimmune disease; diabetes; organ transplant; isolation;
KW
KW
     amino-terminal.
XX
OS
     Homo sapiens.
XX
PN
     DE19545126-A1.
XX
     05-JUN-1997.
PD
XX
PF
                    95DE-01045126.
     04-DEC-1995;
XX
PR
     04-DEC-1995;
                    95DE-01045126.
XX
PΑ
     (FARH ) HOECHST AG.
XX
PI
     Kirschbaum B, Muellner S, Bartlett R;
XX
DR
     WPI; 1997-299388/28.
XX
     New nucleic acid binding protein with helicase activity - is strongly
PT
PT
     induced by leflunomide, used to isolate specific binding RNA and for
     identifying substances with anticancer, antiviral etc. activities.
PT
XX
PS
     Example 4; Page 15; 28pp; German.
XX
     The present sequence is an amino-terminal peptide associated with a novel
CC
     nucleic acid binding protein with helicase activity, the mRNA of which
CC
     (or its translation products) is strongly expressed in presence of
CC
CC
     leflunomide, i.e. 4-(N-(4-trifluoromethylphenyl)-5-methyl-isoxazole, or a
CC
     compound with similar activity. The helicase can be used in assay systems
     to identify/discover anticancer, antiatherosclerotic, immunosuppressing,
CC
     antiinflammatory, antiviral, antifungal and antibacterial agents, e.g. to
CC
CC
     treat Alzheimer's disease, cancer, rheumatism, arthrosis,
CC
     atherosclerosis, osteoporosis, acute/chronic infections, autoimmune
     disease, diabetes and complications of organ transplants, and to isolate
CC
     or determine the sequences of specific binding RNA
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8e+03;
```

```
0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
  Matches
             3; Conservative
            2 KKE 4
Qy
              111
            9 KKE 11
Db
RESULT 69
AAW24438
ID
     AAW24438 standard; peptide; 11 AA.
XX
AC
     AAW24438;
XX
DT
     30-SEP-1997
                  (first entry)
XX
DE
     Nucleic acid (NA) binding peptide used in NA delivery to cells.
XX
     Nucleic acid transporter; gene therapy; binding complex; lysis agent;
KW
     JTS-1; K8; alpha helix; endosome; lysosome; nucleus targeting.
KW
XX
os
     Synthetic.
XX.
PN
     WO9640958-A1.
XX
PD
     19-DEC-1996.
XX
                    96WO-US005679.
PF
     23-APR-1996;
XX
                    95US-00484777.
PR
     07-JUN-1995;
XX
     (BAYU ) BAYLOR COLLEGE MEDICINE.
PA
XX
PΙ
     Smith LC, Sparrow JT,
                             Woo SL;
XX
     WPI; 1997-052345/05.
DR
XX
     Nucleic acid transporter useful in gene therapy - contains binding
PT
     complex associated with surface and nuclear ligands and lysis agent.
PT
XX
PS
     Disclosure; Page 49; 125pp; English.
XX
     AAW24434-W24459 are nucleic acid (NA) binding peptides, capable of both
CC
     condensing and stabilising a NA. The peptides can be conjugated to a
CC
     lytic peptide to form a nucleic acid transporter system. The lysis agent
CC
     forms an alpha-helical structure. The transporter system is used to
CC
     deliver nucleic acid to a cell and for treating humans by gene therapy.
CC
     By taking advantage of the characteristics of both the lysis agents and
CC
     the binding molecules, delivery of the nucleic acid is enhanced. Specific
CC
     lysis agents are capable of releasing the nucleic acid into the cellular
CC
     interior from the endosome. Release is efficient without
CC
     endosomal/lysosomal degradation. Once released the binding complexes help
CC
CC
     target the nucleic acid to the nucleus
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8e+03;
```

```
0; Mismatches
                                                     0; Indels
                                                                   0; Gaps
                                                                                0;
 Matches
             3; Conservative
            1 AKK 3
Qy
              \parallel \parallel \parallel
            3 AKK 5
Db
RESULT 70
AAW35836
     AAW35836 standard; peptide; 11 AA.
ID
XX
AC
     AAW35836;
XX
DT
     27-FEB-1998 (first entry)
XX
DΕ
     Soymetide 3 a soybean protein-derived peptide.
XX
KW
     Soymetide; soybean; antialopecia agent; alopecia; carcinostatic;
KW
     prevention; amelioration.
XX
OS
     Glycine max.
XX
PN
     JP09249535-A.
XX
PD
     22-SEP-1997.
XX
                    96JP-00084667.
PF
     13-MAR-1996;
XX
                    96JP-00084667.
PR
     13-MAR-1996;
XX
PΑ
     (HOHN ) HOHNEN CORP.
XX
DR
     WPI: 1997-529971/49.
XX
     Anti-alopecia agent containing soybean protein-derived peptide -
PT
     especially effective against alopecia induced by carcinostatic agents.
PT
XX
     Claim 1; Page 2; 6pp; Japanese.
PS
XX
     An anti-alopecia agent has been developed which comprises one or more
CC
     soybean protein-derived peptides (designated Soymetides). The present
CC
     sequence represents a specifically claimed soymetide. This agent is
CC
     especially useful for the prevention and amelioration of alopecia caused
CC
     by administration of carcinostatic agents. Soymetide has low toxicity
CC
XX
SQ
     Sequence 11 AA;
                                                     Length 11;
  Query Match
                           27.3%; Score 3; DB 2;
  Best Local Similarity
                           100.0%; Pred. No. 8e+03;
                                                                                0;
                                 0; Mismatches
                                                     0; Indels
                                                                    0; Gaps
  Matches
             3; Conservative
            7 NKP 9
Qу
              \perp
            9 NKP 11
Db
```

```
AAW09909 standard; peptide; 11 AA.
ΙD
XX
AC
     AAW09909;
XX
     16-OCT-1997 (first entry)
DT
XX
     Prostate specific membrane antigen peptide PSM-P26.
DE
XX
     Prostate specific membrane antigen; PSMA; prostate specific antigen; PSA;
KW
     prostate cancer; adoptive cellular immunotherapy; therapy; vaccine.
KW
XX
OS
     Homo sapiens.
XX
     WO9704802-A1.
PN
XX
PD
     13-FEB-1997.
XX
     29-JUL-1996;
                    96WO-US012389.
PF
XX
                    95US-00509254.
PR
     31-JUL-1995;
XX
PΑ
     (PACI-) PACIFIC NORTHWEST CANCER FOUND.
XX
     Murphy GP, Boynton AL,
                              Tjoa BA;
PΙ
XX
DR
     WPI; 1997-145375/13.
XX
     Use of dendritic cells for prostate cancer immuno: therapy - the cells are
PT
PT
     exposed to prostate cancer antigen, then administered to the patient
PT
     where they activate and proliferate T-cells.
XX
PS
     Claim 3; Page 47; 69pp; English.
XX
     Peptide PSM-P26 (AAW09909) corresponds to amino acid residues 398-408 of
CC
     prostate specific membrane antigen (PSMA). A method for producing a
CC
     cancer growth inhibiting response comprises exposing human dendritic
CC
     cells (DCs) to PSM-P26 or other PSMA or prostate specific antigen
CC
     peptides (see also AAW09889-908 and AAW09910-26), and then administering
CC
CC
     the DCs to a prostate cancer patient to activate T cell responses in
     vivo. Alternatively, the T cell response is activated in vitro and the T
CC
     cells are then administered to the patient. In either case, the DCs are
CC
     used to elicit an immunotherapeutic growth inhibiting response against a
CC
     primary or metastatic prostate tumour. PSM-P26 was selected to be
CC
     presented by DCs to activate T cells of a patient which match the All
CC
CC
     haplotype
XX
SO
     Sequence 11 AA;
                           27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                                 0; Mismatches
                                                                               0;
                                                    0; Indels
                                                                      Gaps
  Matches
             3; Conservative
            2 KKE 4
Qу
              1 \cdot 1 \cdot 1
Db
            9 KKE 11
```

AAW09909

```
RESULT 72
AAW04613
ID
     AAW04613 standard; peptide; 11 AA.
XX
AC
     AAW04613;
XX
DT
     13-AUG-1997 (first entry)
XX
     Physalaemin peptide for mass spectrometry analysis.
DE
XX
KW
    Mass spectrometry; polymer analysis; biopolymer analysis.
XX
OS
     Synthetic.
XX
PN
     W09636986-A1.
XX
PD
     21-NOV-1996.
XX
                    96WO-US007146.
PF
     17-MAY-1996;
XX
PR
     19-MAY-1995;
                    95US-00446055.
                    95US-00447175.
PR
     19-MAY-1995;
XX
     (PERS-) PERSEPTIVE BIOSYSTEMS INC.
PA
XX
PΙ
     Patterson DH,
                    Tarr GE;
XX
     WPI; 1997-012308/01.
DR
XX
     Sequencing polymers, e.g. DNA, RNA, peptide nucleic acids, proteins, etc.
PT
     - by obtaining mass to charge ratios of polymer fragments, pref. using
PT
     mass spectrometer, and performing statistical analysis.
PT
XX
     Example 2; Page 32; 86pp; English.
PS
XX
     A method of obtaining sequence information about a polymer (e.g. DNA,
CC
     RNA, peptide nucleic acids, proteins, peptides and carbohydrates)
CC
     comprising monomers of known mass has been claimed. The present sequence
CC
     represents a physalaemin peptide, and was used as an example as a
CC
     digestion before analysis by mass spectrometry, using this novel on-plate
CC
     strategy. Total sequence information from a nine well digestion can be
CC
     represented in a single digestion or it is often derived from two or more
CC
CC
     wells. The methods, apparatus and kit (claimed) can be used for the
     analysis of polymers, particularly biopolymers, e.g. DNA, RNA, peptide
CC
     nucleic acids, proteins, peptides and carbohydrates. It provides a rapid,
CC
     automated and cost effective sequencing of polymers, with a statistical
CC
CC
     certainty
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 8e+03;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
             3; Conservative
  Matches
```

CC

CC

CC CC

CC

CC

CC

CC

CC

CC

```
RESULT 73
AAW35540
ID
     AAW35540 standard; peptide; 11 AA.
XX
AC
     AAW35540;
XX
DT
     25-MAR-2003
                  (revised)
DT
     22-APR-1998
                  (first entry)
XX
DE
     Biotin-labelled model peptide SEQ ID NO:80 from WO9738011.
XX
     T-cell stimulatory peptide; immunogen; non-dendritic; carrier; tumour;
KW
KW
     scaffold; inhibition; metastasis; wound healing; solid phase.
XX
OS
     Unidentified.
XX
                     Location/Qualifiers
FH
     Key
FT
     Modified-site
                      /note= "Labelled with biotin"
FT
XX
     WO9738011-A1.
PN
XX
     16-OCT-1997.
PD
XX
PF
     03-APR-1997;
                    97WO-DK000146.
XX
                    96DK-00000398.
PR
     03-APR-1996;
XX
PA
     (PEPR-) PEPRESEARCH AS.
XX
PΙ
     Heegaard PMH,
                    Jakobsen PH;
XX
DR
     WPI; 1997-512645/47.
XX
     Non-dendritic peptide carrier linked to a solid phase - useful as a
PT
     diagnostic agent and as a scaffold for production of chemical
PT
PT
     derivatives.
XX
     Example 28; Page 153; 262pp; English.
PS
XX
CC
CC
CC
```

A non-dendritic peptide carrier (A) has been developed which is coupled through a linker to a solid phase, forming a complex of (A)-solid phase. Where (A) comprises 10-50 amino acids capable of forming a secondary structure in a benign buffer after liberation from the solid phase, and further the (A)-solid phase complex comprises an immunogenic substance and/or an immune mediator coupled on (A). The present sequence represents a peptide used in an example from the present invention. An (A)-solid phase complex can be used as a scaffold for the production of chemical derivatives, characterised by covalently attaching molecules at attachment points. Alternatively (A) is used as a scaffold-peptide for the incorporation into an Immunostimulating Complex (Iscom) resulting an (A)-Iscom complex which is used for the chemical coupling of antigenic substances in an aqueous solution by conjugation. (A) derivatised with one or more peptides having fibronectin-, laminin- or vitronectin-like

```
plastic surfaces, in particular to inhibit tumour growth and metastasis,
CC
     and for promotion of wound healing. Also a derivatised (A) can be used
CC
     for the selection of specifically-binding aptamers or as a diagnostic
CC
     agent. Such diagnostic-(A) molecules could be used to detect molecules
CC
     derived from or indicative of pregnancy or of a disease, such as an
CC
     infectious, autoimmune or cancerous disease. (Updated on 25-MAR-2003 to
CC
CC
     correct PF field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                           27.3%; Score 3; DB 2; Length 11;
                           100.0%; Pred. No. 8e+03;
  Best Local Similarity
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                                0;
Qу
            7 NKP 9
              \parallel \parallel \parallel \parallel
Db
            7 NKP 9
RESULT 74
AAW35543
     AAW35543 standard; peptide; 11 AA.
ID
XX
AC
     AAW35543;
XX
DT
     25-MAR-2003 (revised)
DT
     22-APR-1998
                  (first entry)
XX
     Immunization DNDPC SEQ ID NO:87 from WO9738011.
DE
XX
     T-cell stimulatory peptide; immunogen; non-dendritic; carrier; tumour;
KW
KW
     scaffold; inhibition; metastasis; wound healing; solid phase.
XX
OS
     Synthetic.
XX
PN
     WO9738011-A1.
XX
PD
     16-OCT-1997.
XX
PF
     03-APR-1997;
                    97WO-DK000146.
XX
PR
     03-APR-1996;
                    96DK-00000398.
XX
PΑ
     (PEPR-) PEPRESEARCH AS.
XX
PΙ
     Heegaard PMH, Jakobsen PH;
XX
DR
     WPI; 1997-512645/47.
XX
     Non-dendritic peptide carrier linked to a solid phase - useful as a
PT
PT
     diagnostic agent and as a scaffold for production of chemical
PT
     derivatives.
XX
PS
     Example 31; Page 156; 262pp; English.
XX
CC
     A non-dendritic peptide carrier (A) has been developed which is coupled
```

binding activities can be used for the promotion of cell-attachment to

CC

```
through a linker to a solid phase, forming a complex of (A)-solid phase.
CC
    Where (A) comprises 10-50 amino acids capable of forming a secondary
CC
     structure in a benign buffer after liberation from the solid phase, and
CC
     further the (A)-solid phase complex comprises an immunogenic substance
CC
     and/or an immune mediator coupled on (A). The present sequence represents
CC
     a peptide used in an example from the present invention. An (A)-solid
CC
     phase complex can be used as a scaffold for the production of chemical
CC
     derivatives, characterised by covalently attaching molecules at
CC
     attachment points. Alternatively (A) is used as a scaffold-peptide for
CC
     the incorporation into an Immunostimulating Complex (Iscom) resulting an
CC
     (A)-Iscom complex which is used for the chemical coupling of antigenic
CC
     substances in an aqueous solution by conjugation. (A) derivatised with
CC
     one or more peptides having fibronectin-, laminin- or vitronectin-like
CC
     binding activities can be used for the promotion of cell-attachment to
CC
     plastic surfaces, in particular to inhibit tumour growth and metastasis,
CC
     and for promotion of wound healing. Also a derivatised (A) can be used
CC
     for the selection of specifically-binding aptamers or as a diagnostic
CC
     agent. Such diagnostic-(A) molecules could be used to detect molecules
CC
     derived from or indicative of pregnancy or of a disease, such as an
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     infectious, autoimmune or cancerous disease. (Updated on 25-MAR-2003 to
CC
     correct PF field.)
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DT
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     Salcini AE,
                 Doria M, Pelicci PG, Di Fiore PP;
PI
XX
    WPI; 1998-594574/50.
DR
XX
    New isolated EH domain binding proteins and peptide(s) - obtained using
PT
    signal transducers eps15 and eps15R containing EH domains by detecting
PT
PT
     specific binding activity.
XX
PS
    Claim 11; Page 72; 90pp; English.
XX
    The present invention describes a new intracellular interactor and novel
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    protein:protein interaction (EH) domain binding protein having (parts of)
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    one of the following human derived sequences designated: (I) h-NUMB; (II)
CC
     h-NUMB-R; (III) h-RAB-R; (IV) ehb3; (V) ehb10; or (VI) ehb21. The present
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    invention also describes peptides containing at least one NPF (Asp-Pro-
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    Phe) motif, able to bind to a protein with at least one EH domain. The
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    proteins with a NPF-containing peptide or the peptides themselves can be
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     used to identify and purify EH containing proteins. Antisense RNA,
CC
    complementary to mRNA encoding h-NUMB, h-NUMB-R, h-RAB-R, ehb3, ehb10, or
CC
    ehb21, can be used for diagnostic and therapeutic uses. Products from the
CC
    present invention can also be used to develop agents for use in control
CC
     of cell proliferation. AAW83220 to AAW83284 represent NPF motif EH domain
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    binding peptides
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Search completed: April 8, 2004, 15:40:07 Job time: 45.3077 secs

1 EKP 3

Db

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

April 8, 2004, 15:30:08; Search time 11.3077 Seconds Run on:

(without alignments)

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US-09-787-443A-17 Title:

Perfect score: 11

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Gapop 60.0 , Gapext 60.0

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Post-processing: Listing first 100 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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ALIGNMENTS

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; Sequence 7, Application US/08111939
; Patent No. 5460951
  GENERAL INFORMATION:
    APPLICANT: Kawai, Shinji
    APPLICANT: Takeshita, Sunao
    APPLICANT: Okazaki, Makoto
    APPLICANT: Amann, Egon
    TITLE OF INVENTION: Bone-Related Carboxypeptidase-Like
    TITLE OF INVENTION: Protein and Process for its Production
    NUMBER OF SEQUENCES: 27
     CORRESPONDENCE ADDRESS:
       ADDRESSEE:
                 Finnegan, Henderson, Farabow, Garrett &
       ADDRESSEE:
                  Dunner
       STREET: 1300 I Street, N.W.
       CITY: Washington
       STATE: D.C.
       COUNTRY: USA
       ZIP: 20005-3315
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       FILING DATE: 26-AUG-1993
       CLASSIFICATION: 435
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       APPLICATION NUMBER: JP 324033/92
       FILING DATE: 03-DEC-1992
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: JP 230029/92
       FILING DATE: 28-AUG-1992
     ATTORNEY/AGENT INFORMATION:
       NAME: Forman, David S.
       REGISTRATION NUMBER: 33,694
       REFERENCE/DOCKET NUMBER: 02481.1321-00000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-408-4000
       TELEFAX: 202-408-4000
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       ORGANISM: Mus musculus
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; Patent No. 6248549
; GENERAL INFORMATION:
; APPLICANT: Van Eyk, Jennifer E.
  APPLICANT: Mak, Alan S.
 APPLICANT: Cote, Graham P.
  TITLE OF INVENTION: Methods of Modulating Muscle Contraction
  FILE REFERENCE: 1997-021-03US
; CURRENT APPLICATION NUMBER: US/09/100,930A
; CURRENT FILING DATE: 1998-06-22
; PRIOR APPLICATION NUMBER: 60/050,478
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    APPLICANT: COUGHLIN, SHAUN R.
    TITLE OF INVENTION: RECOMBINANT RECEPTOR AND RELATED
    TITLE OF INVENTION: PHARMACEUTICALS
    NUMBER OF SEQUENCES: 69
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: IRELL & MANELLA
      STREET: 545 MIDDLEFIELD ROAD, SUITE 200
      CITY: MENLO PARK
      STATE: CA
      COUNTRY: USA
      ZIP: 94025
    COMPUTER READABLE FORM:
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      FILING DATE: 19910219
      CLASSIFICATION:
     ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 2000-0502.00
     TELECOMMUNICATION INFORMATION:
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; Patent No. 5256766
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    TITLE OF INVENTION: RECOMBINANT RECEPTOR AND RELATED
    TITLE OF INVENTION: PHARMACEUTICALS
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      STREET: 545 MIDDLEFIELD ROAD, SUITE 200
      CITY: MENLO PARK
      STATE: CA
      COUNTRY: USA
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      CLASSIFICATION: 435
;
    ATTORNEY/AGENT INFORMATION:
;
      NAME: MURASHIGE, KATE H.
;
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       REFERENCE/DOCKET NUMBER: 2000-0502.00
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      LENGTH: 11 amino acids
      TYPE: AMINO ACID
```

```
STRANDEDNESS: single
       TOPOLOGY: linear
US-07-657-769B-47
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                               0; Gaps
                                                                              0;
            9 PND 11
Qу
             7 PND 9
Db
RESULT 5
US-08-087-423-11
; Sequence 11, Application US/08087423
; Patent No. 5455228
   GENERAL INFORMATION:
     APPLICANT: Coller, Barry S.
     APPLICANT: Prestwich, Glenn D.
    TITLE OF INVENTION: Peptidase Resistant Thrombin TITLE OF INVENTION: Receptor Thrombin Ligand
;
;
    NUMBER OF SEQUENCES: 11
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Hoffmann & Baron
       STREET: 350 Jericho Turnpike
      CITY: Jericho
       STATE: New York
       COUNTRY: United States of America
       ZIP: 11753
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 5.25 inch, 360 KbL
       COMPUTER: IBM XT Compatible
       OPERATING SYSTEM: MS DOS
       SOFTWARE: WORD PERFECT 5.1
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/087,423
       FILING DATE: 02-July-1993
;
       CLASSIFICATION: 514
;
     PRIOR APPLICATION DATA: No. 5455228e
    ATTORNEY/AGENT INFORMATION:
      NAME: MORRIS, ARLENE D.
       REGISTRATION NUMBER: 32,657
      REFERENCE/DOCKET NUMBER: 178-150
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (516) 822-3550
       TELEFAX: (516) 822-3582
   INFORMATION FOR SEQ ID NO: 11:
     SEQUENCE CHARACTERISTICS:
       LENGTH:
               11 Amino Acids
       TYPE: Amino Acid
       TOPOLOGY: Linear
     FEATURE:
       NAME/KEY:
                 Modified-Site
       LOCATION:
                 1
       OTHER INFORMATION: /No. 5455228e = "D-Ser"
US-08-087-423-11
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Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                            0;
            9 PND 11
Qу
             +111
Db
            7 PND 9
RESULT 6
US-08-193-521-18
; Sequence 18, Application US/08193521
; Patent No. 5470950
  GENERAL INFORMATION:
     APPLICANT: Maloy, W. Lee
     APPLICANT: Kari, U. Prasad
    APPLICANT: Williams, Jon I.
    TITLE OF INVENTION: Biologically Active Peptide
    TITLE OF INVENTION: Compositions and Uses Therefor
    NUMBER OF SEQUENCES: 19
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
;
      ADDRESSEE: Cecchi & Stewart
;
      STREET: 6 Becker Farm Road
      CITY: Roseland
      STATE: New Jersey
      COUNTRY: USA
      ZIP: 07068
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5 inch diskette
;
      COMPUTER: IBM PS/2
      OPERATING SYSTEM:
;
                         PC-DOS
      SOFTWARE: DW4.V2
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/193,521
      FILING DATE:
;
      CLASSIFICATION: 514
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: US/07/870,960
      FILING DATE:
;
      APPLICATION NUMBER: 07/760,054
;
      FILING DATE: 13-SEP-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: Olstein, Elliot M.
      REGISTRATION NUMBER: 24,025
;
      REFERENCE/DOCKET NUMBER: 421250-161
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-994-1700
;
      TELEFAX: 201-994-1744
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
```

```
FEATURE:
      OTHER INFORMATION: May be a C-terminal amide,
      OTHER INFORMATION: and/or may be acetylated at
      OTHER INFORMATION: N-terminus.
US-08-193-521-18
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative
                              0; Mismatches 0; Indels
                                                                            0;
 Matches
                                                                0; Gaps
           1 AKK 3
Qу
             \mathbf{I}
           1 AKK 3
Db
RESULT 7
US-08-116-733-1
; Sequence 1, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
     NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH:
              11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-1
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27.3%; Score 3; DB 1; Length 11;

Query Match

```
Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
           5 KPN 7
Qу
             -111
           4 KPN 6
Db
RESULT 8
US-08-116-733-31
; Sequence 31, Application US/08116733
; Patent No. 5516632
; GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
;
      CITY: ARLINGTON
;
      STATE: VIRGINIA
;
      COUNTRY: U.S.A.
;
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.25
;
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/116,733
;
      FILING DATE: 07-SEP-1993
;
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
;
     NAME: WILSON, MARY J.
;
      REGISTRATION NUMBER: 32,955
;
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
;
      TELEPHONE: (703) 816-4000
;
      TELEFAX: (703) 816-4100
;
      TELEX: 200797 NIXN UR
  INFORMATION FOR SEQ ID NO: 31:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-31
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy
           5 KPN 7
             -1.11
           4 KPN 6
Db
```

```
RESULT 9
US-08-116-733-32
; Sequence 32, Application US/08116733
; Patent No. 5516632
   GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
       STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
       STATE: VIRGINIA
       COUNTRY: U.S.A.
       ZIP: 22201-4714
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM:
                        PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/116,733
       FILING DATE: 07-SEP-1993
       CLASSIFICATION: 435
     ATTORNEY/AGENT INFORMATION:
       NAME: WILSON, MARY J.
       REGISTRATION NUMBER: 32,955
       REFERENCE/DOCKET NUMBER: 1579-33
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (703) 816-4000
       TELEFAX: (703) 816-4100
       TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-116-733-32
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
                                                                             0;
            3; Conservative 0; Mismatches
                                                      Indels
                                                                 0; Gaps
                                                   0;
            1 AKK 3
Qу
              +
            2 AKK 4
Db
RESULT 10
US-08-116-733-33
; Sequence 33, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
     APPLICANT: PALKER, Thomas J.
```

```
APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
;
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
;
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
;
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-33
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                             0;
 Matches
           5 KPN 7
Qу
             4 KPN 6
Db
RESULT 11
US-08-116-733-37
; Sequence 37, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
```

```
STATE: VIRGINIA
       COUNTRY: U.S.A.
       ZIP: 22201-4714
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
;
    ATTORNEY/AGENT INFORMATION:
;
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
       TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO: 37:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-37
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
                              0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
  Matches
           3; Conservative
            5 KPN 7
Qу
             111
            4 KPN 6
RESULT 12
US-08-116-733-38
; Sequence 38, Application US/08116733
; Patent No. 5516632
   GENERAL INFORMATION:
     APPLICANT: PALKER, Thomas J.
     APPLICANT: HAYNES, Barton F.
     TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
       STREET: 1100 NORTH GLEBE ROAD
       CITY: ARLINGTON
       STATE: VIRGINIA
       COUNTRY: U.S.A.
       ZIP: 22201-4714
     COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-38
                         27.3%; Score 3; DB 1; Length 11;
 Query Match
                         100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
                               0; Mismatches
                                                0; Indels
                                                               0; Gaps
                                                                            0;
            3; Conservative
           5 KPN 7
Qу
             4 KPN 6
Db
RESULT 13
US-08-116-733-39
; Sequence 39, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
     APPLICANT: PALKER, Thomas J.
     APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
;
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
     ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
```

```
REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO: 39:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-39
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           5 KPN 7
Qy
             111
           4 KPN 6
Db
RESULT 14
US-08-116-733-40
; Sequence 40, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO: 40:
```

```
SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-40
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
           5 KPN 7
Qy
             \perp
           4 KPN 6
Db
RESULT 15
US-08-116-733-41
; Sequence 41, Application US/08116733
; Patent No. 5516632
  GENERAL INFORMATION:
    APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
     NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO:
                              41:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-41
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```
27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                              0; Mismatches
                                               0; Indels 0; Gaps
           3; Conservative
 Matches
           5 KPN 7
Qу
             111
           4 KPN 6
Db
RESULT 16
US-08-167-035-38
; Sequence 38, Application US/08167035
; Patent No. 5618691
; GENERAL INFORMATION:
    APPLICANT: Schlessinger, Joseph
    APPLICANT: Skolnick, Edward Y.
    APPLICANT: Margolis, Benjamin L.
    TITLE OF INVENTION: NOVEL EXPRESSION CLONING METHOD FOR
    TITLE OF INVENTION: IDENTIFYING TARGET PROTEINS FOR EUKARYOTIC TYROSINE
    TITLE OF INVENTION: KINASES AND NOVEL TARGET PROTEINS
    NUMBER OF SEQUENCES: 50
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: PENNIE & EDMONDS
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: 10036-2711
      ZIP: 10036-2711
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/167,035
      FILING DATE: 16-DEC-1993
;
      CLASSIFICATION: 435
;
    ATTORNEY/AGENT INFORMATION:
     NAME: Coruzzi, Laura A.
      REGISTRATION NUMBER: 30,742
      REFERENCE/DOCKET NUMBER: 7683-062
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
;
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 38:
;
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-08-167-035-38
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches
                                               0; Indels 0; Gaps
                                                                           0;
  Matches
```

```
5 KPN 7
Qу
            111
           1 KPN 3
Db
RESULT 17
US-08-428-488-16
; Sequence 16, Application US/08428488
; Patent No. 5624894
  GENERAL INFORMATION:
    APPLICANT: BODOR, Nicholas S.
    TITLE OF INVENTION: BRAIN-ENHANCED DELIVERY OF NEUROACTIVE
    TITLE OF INVENTION: PEPTIDES BY SEQUENTIAL METABOLISM
;
    NUMBER OF SEQUENCES: 107
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Burns, Doane, Swecker & Mathis
      STREET: P.O. Box 1404
      CITY: Alexandria
      STATE: Virginia
      COUNTRY: United States
      ZIP: 22313-1404
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/428,488
      FILING DATE: 27-APR-1995
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: Baumeister, Mary Katherine
      REGISTRATION NUMBER: 26,254
      REFERENCE/DOCKET NUMBER: 028724-087
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (703) 836-6620
       TELEFAX: (703) 836-2021
   INFORMATION FOR SEQ ID NO: 16:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
                 1
      OTHER INFORMATION: /note= "Position 1 = p-Glu."
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 11
      OTHER INFORMATION: /note= "Position 11 = Met-NH2."
US-08-428-488-16
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps

0;

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6 PNK 8
Qу
              \mathbf{I} \mathbf{I} \mathbf{I}
            4 PNK 6
Db
RESULT 18
US-08-434-120-112
; Sequence 112, Application US/08434120
; Patent No. 5635479
   GENERAL INFORMATION:
     APPLICANT: Baker, Margaret A. APPLICANT: Jacob, Leonard S.
     APPLICANT: Maloy, W. Lee
     TITLE OF INVENTION: Treatment of Gynecological
    TITLE OF INVENTION: Malignancies with
     TITLE OF INVENTION: Biologically Active Peptides
     NUMBER OF SEQUENCES: 117
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
       ADDRESSEE: Cecchi & Stewart
       STREET: 6 Becker Farm Road
       CITY: Roseland
       STATE: New Jersey
       COUNTRY: USA
       ZIP: 07068
     COMPUTER READABLE FORM:
       MEDIUM TYPE: 3.5 inch diskette
       COMPUTER: IBM PS/2
       OPERATING SYSTEM:
                          PC-DOS
       SOFTWARE: DW4.V2
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/434,120
       FILING DATE:
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US/08/297,950
;
       FILING DATE:
      APPLICATION NUMBER: US/08/226,108
       FILING DATE:
       APPLICATION NUMBER: US/07/937,462
       FILING DATE:
     ATTORNEY/AGENT INFORMATION:
       NAME: Olstein, Elliot M.
       REGISTRATION NUMBER: 24,025
       REFERENCE/DOCKET NUMBER: 421250-194
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 201-994-1700
       TELEFAX: 201-994-1744
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS:
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-434-120-112
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Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
 Matches
           1 AKK 3
Qу
             1 AKK 3
Db
RESULT 19
US-07-958-903A-14
; Sequence 14, Application US/07958903A
; Patent No. 5652214
  GENERAL INFORMATION:
    APPLICANT: Lewis, Michael E.
    APPLICANT: Kauer, James C.
    APPLICANT: Smith, Kevin R.
    APPLICANT: Callison, Kathleen V.
    APPLICANT: Baldino, Frank
    APPLICANT: Neff, Nicola
    APPLICANT: Iqbal, Mohamed
    TITLE OF INVENTION: TREATING DISORDERS BY APPLICATION
    TITLE OF INVENTION: OF INSULIN-LIKE GROWTH FACTORS AND
    TITLE OF INVENTION: ANALOGS
    NUMBER OF SEQUENCES: 56
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Fish & Richardson
;
      STREET: 225 Franklin Street
;
      CITY: Boston
      STATE: Massachusetts
      COUNTRY: U.S.A.
      ZIP: 02110-2804
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
      COMPUTER: IBM PS/2 Model 50Z or 55SX
      OPERATING SYSTEM: MS-DOS (Version 5.0)
       SOFTWARE: WordPerfect (Version 5.1)
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/958,903A
      FILING DATE: October 7, 1992
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/361,595
       FILING DATE: June 5, 1989
      APPLICATION NUMBER: 07/534,139
      FILING DATE: June 5, 1990
      APPLICATION NUMBER: 07/869,913
       FILING DATE: April 15, 1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Clark, Paul T.
      REGISTRATION NUMBER: 30,162
;
      REFERENCE/DOCKET NUMBER: 02655/003004
;
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 542-5070
      TELEFAX: (617) 542-8906
      TELEX: 200154
```

```
INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
US-07-958-903A-14
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches
                                               0; Indels
                                                                            0;
 Matches
                                                                0; Gaps
           7 NKP 9
Qу
             4 NKP 6
Db
RESULT 20
US-08-208-887A-38
; Sequence 38, Application US/08208887A
; Patent No. 5677421
  GENERAL INFORMATION:
    APPLICANT: Schlessinger, Joseph
    APPLICANT: Skolnick, Edward Y.
    APPLICANT: Margolis, Benjamin L.
    TITLE OF INVENTION: NOVEL EXPRESSION CLONING METHOD FOR
    TITLE OF INVENTION: IDENTIFYING TARGET PROTEINS FOR EUKARYOTIC TYROSINE
    TITLE OF INVENTION: KINASES AND NOVEL TARGET PROTEINS
;
    NUMBER OF SEQUENCES: 51
;
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: PENNIE & EDMONDS
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: 10036-2711
;
      ZIP: 10036-2711
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/208,887A
      FILING DATE: 11-MAR-1994
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Coruzzi, Laura A.
      REGISTRATION NUMBER: 30,742
       REFERENCE/DOCKET NUMBER: 7683-063
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 38:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
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TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-08-208-887A-38
                           27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                               0; Mismatches
           3; Conservative
                                                                                0;
  Matches
                                                    0; Indels
                                                                   0; Gaps
            5 KPN 7
Qy
              111
            1 KPN 3
Db
RESULT 21
US-08-465-325-111
; Sequence 111, Application US/08465325
; Patent No. 5686563
   GENERAL INFORMATION:
     APPLICANT: Magainin Pharmaceuticals Inc.
     APPLICANT: 5110 Campus Drive
APPLICANT: Plymouth Meeting, PA 19462
     TITLE OF INVENTION: Biologically Active Peptides Having TITLE OF INVENTION: N-Terminal Substitutions
     NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
       ADDRESSEE: Dunner
       STREET: 1300 I. Street, N.W. Suite 700
       CITY: Washington
       STATE: D.C.
       COUNTRY: USA
       ZIP: 20005-3315
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/465,325
       FILING DATE: 05-JUN-1995
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 08/184,462
       FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
     ATTORNEY/AGENT INFORMATION:
       NAME: Fordis, Jean B
       REGISTRATION NUMBER: 32,984
       REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 111:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
```

```
TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-465-325-111
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              III
            1 AKK 3
Db
RESULT 22
US-08-465-325-122
; Sequence 122, Application US/08465325
; Patent No. 5686563
   GENERAL INFORMATION:
;
     APPLICANT: Magainin Pharmaceuticals Inc.
;
     APPLICANT: 5110 Campus Drive
     APPLICANT: Plymouth Meeting, PA 19462
     TITLE OF INVENTION: Biologically Active Peptides Having
     TITLE OF INVENTION: N-Terminal Substitutions
     NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & ADDRESSEE: Dunner
       STREET: 1300 I. Street, N.W. Suite 700
       CITY: Washington
       STATE: D.C.
       COUNTRY: USA
       ZIP: 20005-3315
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
;
;
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/465,325
       FILING DATE: 05-JUN-1995
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 08/184,462
       FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
     ATTORNEY/AGENT INFORMATION:
       NAME: Fordis, Jean B
       REGISTRATION NUMBER: 32,984
       REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 122:
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```
SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-465-325-122
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
 Matches
                                                                0; Gaps
                                                                            0;
           1 AKK 3 .
Qу
             111
           7 AKK 9
Db
RESULT 23
US-08-465-325-123
; Sequence 123, Application US/08465325
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/184,462
      FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
      FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
      REGISTRATION NUMBER: 32,984
      REFERENCE/DOCKET NUMBER: 05387.0021-03000
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 408-4000
```

```
TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-465-325-123
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches 0;
                                                     Indels
                                                                0; Gaps
                                                                            0;
           1 AKK 3
Qу
             111
Db
            7 AKK 9
RESULT 24
US-07-789-184-20
; Sequence 20, Application US/07789184
; Patent No. 5688768
  GENERAL INFORMATION:
     APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
     TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
;
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
;
      COUNTRY: USA
      ZIP: 94304-1018
     COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/789,184
      FILING DATE: 19911107
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
       REFERENCE/DOCKET NUMBER: 22000-20502.20
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 20:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: AMINO ACID
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```
STRANDEDNESS: single
       TOPOLOGY: linear
     FEATURE:
      NAME/KEY: Modified-site
       LOCATION: 3
       OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
US-07-789-184-20
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
  Matches
                                                                0; Gaps
                                                                            0;
Qу
           9 PND 11
             111
           8 PND 10
Db
RESULT 25
US-07-789-184-28
; Sequence 28, Application US/07789184
; Patent No. 5688768
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
;
       ZIP: 94304-1018
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/789,184
       FILING DATE: 19911107
;
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
       REGISTRATION NUMBER: 29,959
       REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
;
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 28:
     SEQUENCE CHARACTERISTICS:
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LENGTH: 11 amino acids
      TYPE: AMINO ACID
      STRANDEDNESS: single
;
      TOPOLOGY: linear
;
    FEATURE:
;
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
US-07-789-184-28
                         27.3%; Score 3; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                            0;
Qу
           9 PND 11
             \mathbf{I}
Db
           7 PND 9
RESULT 26
US-07-789-184-37
; Sequence 37, Application US/07789184
; Patent No. 5688768
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
;
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
;
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
;
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
;
      ZIP: 94304-1018
;
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/789,184
      FILING DATE: 19911107
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
;
      TELEX: 34-0154
  INFORMATION FOR SEQ ID NO: 37:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
```

```
TYPE: AMINO ACID
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
    FEATURE:
;
     NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
US-07-789-184-37
                        27.3%; Score 3; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                            0; Gaps
                                                                       0;
          9 PND 11
Qу
            Db
          7 PND 9
RESULT 27
US-07-789-184-39
; Sequence 39, Application US/07789184
; Patent No. 5688768
; GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
    ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/789,184
      FILING DATE: 19911107
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
    NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
```

```
TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 39:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: AMINO ACID
       STRANDEDNESS: single
      TOPOLOGY: linear
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 11
      OTHER INFORMATION: /note= "This position is Y-NH2."
US-07-789-184-39
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches 3; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
           9 PND 11
Qу
             \Box
            7 PND 9
Db
RESULT 28
US-07-789-184-52
; Sequence 52, Application US/07789184
; Patent No. 5688768
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R. APPLICANT: SCARBOROUGH, ROBERT M.
     TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
     TITLE OF INVENTION: RELATED PHARMACEUTICALS
     NUMBER OF SEQUENCES: 223
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
       STREET: 755 Page Mill Road
       CITY: Palo Alto
       STATE: California
      COUNTRY: USA
       ZIP: 94304-1018
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/789,184
      FILING DATE: 19911107
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 52:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
US-07-789-184-52
                         27.3%; Score 3; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
           9 PND 11
Qу
             7 PND 9
Db
RESULT 29
US-07-789-184-54
; Sequence 54, Application US/07789184
; Patent No. 5688768
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
```

```
CITY: Palo Alto
       STATE: California
       COUNTRY: USA
       ZIP: 94304-1018
     COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/789,184
       FILING DATE: 19911107
      CLASSIFICATION: 514
;
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 54:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: AMINO ACID
       STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
;
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      LOCATION:
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    FEATURE:
      NAME/KEY: Modified-site
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      OTHER INFORMATION: /note= "This position is Cha."
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      LOCATION: 11
      OTHER INFORMATION: /note= "This position is Y-NH2."
US-07-789-184-54
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 Matches 3; Conservative 0; Mismatches 0; Indels
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           9 PND 11
Qу
             III
           7 PND 9
RESULT 30
US-07-789-184-181
; Sequence 181, Application US/07789184
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; Patent No. 5688768
; GENERAL INFORMATION:
     APPLICANT: COUGHLIN, SHAUN R.
     APPLICANT: SCARBOROUGH, ROBERT M.
     TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
     TITLE OF INVENTION: RELATED PHARMACEUTICALS
     NUMBER OF SEQUENCES: 223
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
       STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
;
      ZIP: 94304-1018
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/789,184
;
      FILING DATE: 19911107
      CLASSIFICATION: 514
;
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 181:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
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      STRANDEDNESS: single
      TOPOLOGY: linear
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      NAME/KEY: Modified-site
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      LOCATION:
;
      OTHER INFORMATION: /note= "This position is (Cha)."
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      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is (Cha)."
US-07-789-184-181
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Qу
             Db
           8 PND 10
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US-08-462-018-14
; Sequence 14, Application US/08462018
; Patent No. 5703045
  GENERAL INFORMATION:
     APPLICANT: Lewis, Michael E.
    APPLICANT: Kauer, James C.
    APPLICANT: Smith, Kevin R.
    APPLICANT: Callison, Kathleen V.
    APPLICANT: Baldino, Frank
    APPLICANT: Neff, Nicola
    APPLICANT: Igbal, Mohamed
    TITLE OF INVENTION: TREATING DISORDERS BY APPLICATION
    TITLE OF INVENTION: OF INSULIN-LIKE GROWTH FACTORS AND
    TITLE OF INVENTION: ANALOGS
    NUMBER OF SEQUENCES: 56
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Fish & Richardson P.C.
      STREET: 225 Franklin Street
      CITY: Boston
      STATE: Massachusetts
      COUNTRY: U.S.A.
      ZIP: 02110-2804
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
      COMPUTER: IBM PS/2 Model 50Z or 55SX
      OPERATING SYSTEM: MS-DOS (Version 5.0)
      SOFTWARE: WordPerfect (Version 5.1)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/462,018
      FILING DATE:
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/958,903
      FILING DATE: October 7, 1992
      APPLICATION NUMBER: 07/361,595
      FILING DATE: June 5, 1989
      APPLICATION NUMBER: 07/534,139
      FILING DATE: June 5, 1990
      APPLICATION NUMBER: 07/869,913
      FILING DATE: April 15, 1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Clark, Paul T.
      REGISTRATION NUMBER: 30,162
      REFERENCE/DOCKET NUMBER: 02655/003005
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 542-5070
      TELEFAX: (617) 542-8906
      TELEX: 200154
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
US-08-462-018-14
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Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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           7 NKP 9
Qу
             +111
Db
           4 NKP 6
RESULT 32
US-08-156-552A-17
; Sequence 17, Application US/08156552A
; Patent No. 5726155
  GENERAL INFORMATION:
    APPLICANT: Bokoch, Gary M
    APPLICANT: Curnutte, John T
    TITLE OF INVENTION: REGULATION OF OXIDATIVE BURST USING
    TITLE OF INVENTION: LMWG-DERIVED PEPTIDES AND ANALOGS
    NUMBER OF SEQUENCES: 31
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: The Scripps Research Institute, Office of
;
      ADDRESSEE: Patent Counsel
;
      STREET: 10666 No. 5726155th Torrey Pines Road, TPC 8
      CITY: La Jolla
      STATE: CA
      COUNTRY: USA
      ZIP: 92037
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/156,552A
;
      FILING DATE: 15-NOV-1993
;
      CLASSIFICATION: 514
;
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US 08/102,944
;
      FILING DATE: 02-AUG-1993
;
    ATTORNEY/AGENT INFORMATION:
;
     NAME: Logan, April C.
      REGISTRATION NUMBER: 33,950
      REFERENCE/DOCKET NUMBER: SCRF 281.1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 619-554-2937
      TELEFAX: 619-554-6312
  INFORMATION FOR SEQ ID NO: 17:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
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US-08-156-552A-17
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                                                                         0;
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3 KEK 5
Qу
             4 KEK 6
Dh
RESULT 33
US-08-475-263-20
; Sequence 20, Application US/08475263
; Patent No. 5759994
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
;
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 2000 Pennsylvania Ave., NW
      CITY: Washington
      STATE: DC
;
      COUNTRY: USA
;
      ZIP: 20006-1812
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/475,263
;
      FILING DATE: 07-JUN-1995
;
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
;
      REFERENCE/DOCKET NUMBER: 22000-20502.03
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 887-1500
;
      TELEFAX: (202) 887-0763
;
      TELEX: 90-4030
  INFORMATION FOR SEQ ID NO: 20:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      STRANDEDNESS: single
;
      TOPOLOGY: linear
;
    FEATURE:
;
      NAME/KEY: Modified-site
      LOCATION:
      OTHER INFORMATION: /note= "This position is Cha."
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      LOCATION:
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US-08-475-263-20
                         27.3%; Score 3; DB 1; Length 11;
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Best Local Similarity 100.0%; Pred. No. 2.3e+03;

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Matches
          3; Conservative 0; Mismatches 0; Indels
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           9 PND 11
Qу
             \Pi\Pi
Db
           8 PND 10
RESULT 34
US-08-475-263-28
; Sequence 28, Application US/08475263
; Patent No. 5759994
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 2000 Pennsylvania Ave., NW
;
      CITY: Washington
;
      STATE: DC
      COUNTRY: USA
      ZIP: 20006-1812
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/475,263
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.03
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 887-1500
;
      TELEFAX: (202) 887-0763
      TELEX: 90-4030
   INFORMATION FOR SEQ ID NO: 28:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
      OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
US-08-475-263-28
                         27.3%; Score 3; DB 1; Length 11;
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                         100.0%; Pred. No. 2.3e+03;
 Best Local Similarity
           3; Conservative 0; Mismatches 0; Indels
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9 PND 11
Qу
              -111
            7 PND 9
Db
RESULT 35
US-08-475-263-37
; Sequence 37, Application US/08475263
; Patent No. 5759994
  GENERAL INFORMATION:
     APPLICANT: COUGHLIN, SHAUN R.
     APPLICANT: SCARBOROUGH, ROBERT M.
     TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
     TITLE OF INVENTION: RELATED PHARMACEUTICALS
     NUMBER OF SEQUENCES: 223
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: MORRISON & FOERSTER
       STREET: 2000 Pennsylvania Ave., NW
      CITY: Washington
       STATE: DC
      COUNTRY: USA
       ZIP: 20006-1812
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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       OPERATING SYSTEM: PC-DOS/MS-DOS
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     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,263
      FILING DATE: 07-JUN-1995
       CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
       REGISTRATION NUMBER: 29,959
       REFERENCE/DOCKET NUMBER: 22000-20502.03
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 887-1500
;
      TELEFAX: (202) 887-0763
       TELEX: 90-4030
   INFORMATION FOR SEQ ID NO: 37:
     SEQUENCE CHARACTERISTICS:
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       LENGTH: 11 amino acids
       TYPE: amino acid
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      LOCATION:
      OTHER INFORMATION: /note= "This position is Mpr,
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      OTHER INFORMATION: S-Me Mpr or Mba."
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      NAME/KEY:
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      LOCATION:
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     FEATURE:
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NAME/KEY: Modified-site

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LOCATION: 4
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US-08-475-263-37
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                                                                           0;
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Qу
             7 PND 9
Db
RESULT 36
US-08-475-263-39
; Sequence 39, Application US/08475263
; Patent No. 5759994
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
;
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
;
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 2000 Pennsylvania Ave., NW
      CITY: Washington
      STATE: DC
;
      COUNTRY: USA
;
      ZIP: 20006-1812
;
    COMPUTER READABLE FORM:
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      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
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      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,263
;
      FILING DATE: 07-JUN-1995
;
      CLASSIFICATION: 424
;
    ATTORNEY/AGENT INFORMATION:
     NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.03
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 887-1500
      TELEFAX: (202) 887-0763
      TELEX: 90-4030
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    SEQUENCE CHARACTERISTICS:
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      TYPE: amino acid
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      TOPOLOGY: linear
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    NAME/KEY: Modified-site
      LOCATION: 1
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      NAME/KEY: Modified-site
      LOCATION: 3
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    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
       LOCATION:
      OTHER INFORMATION: /note= "This position is Y-NH2."
US-08-475-263-39
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           9 PND 11
Qу
             +111
           7 PND 9
Db
RESULT 37
US-08-475-263-52
; Sequence 52, Application US/08475263
; Patent No. 5759994
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 2000 Pennsylvania Ave., NW
;
      CITY: Washington
;
      STATE: DC
      COUNTRY: USA
      ZIP: 20006-1812
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,263
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
;
      REFERENCE/DOCKET NUMBER: 22000-20502.03
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 887-1500
      TELEFAX: (202) 887-0763
```

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TELEX: 90-4030
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
       OTHER INFORMATION: /note= "This position is Mpr."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
US-08-475-263-52
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                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                             0;
           9 PND 11
Qу
             -111
            7 PND 9
Db
RESULT 38
US-08-475-263-54
; Sequence 54, Application US/08475263
; Patent No. 5759994
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 2000 Pennsylvania Ave., NW
      CITY: Washington
      STATE: DC
      COUNTRY: USA
      ZIP: 20006-1812
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,263
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
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```
NAME: MURASHIGE, KATE H.
       REGISTRATION NUMBER: 29,959
       REFERENCE/DOCKET NUMBER: 22000-20502.03
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 887-1500
       TELEFAX: (202) 887-0763
      TELEX: 90-4030
   INFORMATION FOR SEQ ID NO: 54:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
;
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
                 11
      OTHER INFORMATION: /note= "This position is Y-NH2."
US-08-475-263-54
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                           0;
           9 PND 11
Qy
             +111
           7 PND 9
Db
RESULT 39
US-08-475-263-181
; Sequence 181, Application US/08475263
; Patent No. 5759994
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 2000 Pennsylvania Ave., NW
      CITY: Washington
;
      STATE: DC
      COUNTRY: USA
      ZIP: 20006-1812
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COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,263
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.03
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 887-1500
      TELEFAX: (202) 887-0763
       TELEX: 90-4030
   INFORMATION FOR SEQ ID NO: 181:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is (Cha)."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
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US-08-475-263-181
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels
 Matches
                                                               0; Gaps
                                                                           0;
           9 PND 11
Qу
             -111
Db
           8 PND 10
RESULT 40
US-08-315-026B-2
; Sequence 2, Application US/08315026B
; Patent No. 5763199
  GENERAL INFORMATION:
    APPLICANT: Coller, Barry S.
    TITLE OF INVENTION: PLATELET BLOCKADE ASSAY
    NUMBER OF SEQUENCES: 10
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Heller Ehrman White & McAuliffe
      STREET: 525 University Avenue
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94301-1900
```

```
COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/315,026B
      FILING DATE: 29-Sep-1994
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Schmonsees, William
       REGISTRATION NUMBER: 31,796
      REFERENCE/DOCKET NUMBER: 22608-0003
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 324-7041
       TELEFAX: (415) 324-0638
   INFORMATION FOR SEQ ID NO: 2:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FRAGMENT TYPE: N-terminal
US-08-315-026B-2
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches
          3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                           0;
           9 PND 11
Qу
             -1.11
           7 PND 9
Db
RESULT 41
US-08-315-026B-5
; Sequence 5, Application US/08315026B
; Patent No. 5763199
   GENERAL INFORMATION:
    APPLICANT: Coller, Barry S.
    TITLE OF INVENTION: PLATELET BLOCKADE ASSAY
    NUMBER OF SEQUENCES: 10
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Heller Ehrman White & McAuliffe
      STREET: 525 University Avenue
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94301-1900
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
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CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/315,026B
       FILING DATE: 29-Sep-1994
       CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Schmonsees, William
      REGISTRATION NUMBER: 31,796
      REFERENCE/DOCKET NUMBER: 22608-0003
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 324-7041
       TELEFAX: (415) 324-0638
   INFORMATION FOR SEQ ID NO: 5:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FRAGMENT TYPE: N-terminal
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /product= "OTHER"
      OTHER INFORMATION: /note= ""xaa=isoserine""
US-08-315-026B-5
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           9 PND 11
Qу
             -111
Db
           7 PND 9
RESULT 42
US-08-823-245-14
; Sequence 14, Application US/08823245
; Patent No. 5776897
  GENERAL INFORMATION:
    APPLICANT: Lewis, Michael
    APPLICANT: Kauer, James C.
;
    APPLICANT: Smith, Kevin R.
    APPLICANT: Callison, Kathleen V.
;
    APPLICANT: Baldino, Frank
;
    APPLICANT: Neff, Nicola
;
    APPLICANT: Iqbal, Mohamed
    TITLE OF INVENTION: TREATING DISORDERS BY
    TITLE OF INVENTION: APPLICATION
    TITLE OF INVENTION: OF INSULIN-LIKE GROWTH
    TITLE OF INVENTION: FACTORS AND
    TITLE OF INVENTION: ANALOGS
;
    NUMBER OF SEQUENCES: 56
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Fish & Richardson
```

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STREET: 225 Franklin Street
       CITY: Boston
       STATE: Massachusetts
       COUNTRY: U.S.A.
       ZIP: 02110-2804
     COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
       COMPUTER: IBM PS/2 Model 50Z or
       COMPUTER: 55SX
       OPERATING SYSTEM: MS-DOS (Version 5.0)
       SOFTWARE: WordPerfect (Version
                5.1)
       SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/823,245
      FILING DATE: March 24, 1997
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/361,595
      FILING DATE: June 6, 1989
      APPLICATION NUMBER: 07/534,139
      FILING DATE: June 5, 1990
      APPLICATION NUMBER: 07/869,913
      FILING DATE: April 15, 1992
      APPLICATION NUMBER: 07/958,903
       FILING DATE: October 7, 1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Creeson, Gary L.
      REGISTRATION NUMBER: 34,310
      REFERENCE/DOCKET NUMBER: 02655/003008
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 542-5070
      TELEFAX: (617) 542-8906
      TELEX: 200154
   INFORMATION FOR SEO ID NO: 14:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11
      TYPE: amino acid
      STRANDEDNESS: N/A
      TOPOLOGY: N/A
US-08-823-245-14
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                               0; Mismatches 0; Indels
 Matches
           3; Conservative
                                                               0; Gaps
                                                                           0;
Qy
           7 NKP 9
             -111
           4 NKP 6
Db
RESULT 43
US-08-485-886-20
; Sequence 20, Application US/08485886
; Patent No. 5798248
; GENERAL INFORMATION:
   APPLICANT: COUGHLIN, SHAUN R.
   APPLICANT: SCARBOROUGH, ROBERT M.
```

```
TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/485,886
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
     NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
  INFORMATION FOR SEQ ID NO: 20:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
     NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
US-08-485-886-20
  Query Match
                        27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
Qу
           9 PND 11
             111
Db
           8 PND 10
```

RESULT 44 US-08-485-886-28

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; Sequence 28, Application US/08485886
; Patent No. 5798248
  GENERAL INFORMATION:
     APPLICANT: COUGHLIN, SHAUN R.
     APPLICANT: SCARBOROUGH, ROBERT M.
     TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/485,886
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
;
      REGISTRATION NUMBER: 29,959
;
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      STRANDEDNESS: single
      TOPOLOGY: linear
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
US-08-485-886-28
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
            3; Conservative
                             0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           9 PND 11
Qу
             Db
           7 PND 9
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```
RESULT 45
US-08-485-886-37
; Sequence 37, Application US/08485886
; Patent No. 5798248
  GENERAL INFORMATION:
     APPLICANT: COUGHLIN, SHAUN R. APPLICANT: SCARBOROUGH, ROBERT M.
     TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
  TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: MORRISON & FOERSTER
       STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/485,886
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
       FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
     NAME: MURASHIGE, KATE H.
       REGISTRATION NUMBER: 29,959
       REFERENCE/DOCKET NUMBER: 22000-20502.20
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 37:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
     FEATURE:
      NAME/KEY: Modified-site
       LOCATION: 1
       OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
     FEATURE:
      NAME/KEY: Modified-site
       LOCATION: 4
       OTHER INFORMATION: /note= "This position is Cha."
US-08-485-886-37
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Query Match
                         27.3%; Score 3; DB 1; Length 11;
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           3; Conservative 0; Mismatches 0; Indels
 Matches
                                                               0; Gaps
           9 PND 11
Qу
            7 PND 9
Db
RESULT 46
US-08-485-886-39
; Sequence 39, Application US/08485886
; Patent No. 5798248
; GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/485,886
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
;
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
    NAME/KEY: Modified-site
      LOCATION:
                1
      OTHER INFORMATION: /note= "This position is Mpr,
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OTHER INFORMATION: S-Me Mpr or Mba."
     FEATURE:
       NAME/KEY: Modified-site
       LOCATION:
                  3
       OTHER INFORMATION: /note= "This position is Cha."
;
     FEATURE:
       NAME/KEY: Modified-site
       LOCATION: 4
       OTHER INFORMATION: /note= "This position is Cha."
     FEATURE:
       NAME/KEY: Modified-site
       LOCATION:
                 11
       OTHER INFORMATION: /note= "This position is Y-NH2."
US-08-485-886-39
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
Qу
            9 PND 11
              \perp
Db
            7 PND 9
RESULT 47
US-08-485-886-52
; Sequence 52, Application US/08485886
; Patent No. 5798248
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R. APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/485,886
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
       FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
```

```
TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 52:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
     NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr."
    FEATURE:
     NAME/KEY: Modified-site
     LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
US-08-485-886-52
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
  Matches
                                                                          0;
           9 PND 11
Qу
             -111
           7 PND 9
Db
RESULT 48
US-08-485-886-54
; Sequence 54, Application US/08485886
; Patent No. 5798248
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/485,886
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FILING DATE: 07-JUN-1995
       CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
       FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
     NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 54:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
     • TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
;
      NAME/KEY: Modified-site
;
      LOCATION:
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 11
      OTHER INFORMATION: /note= "This position is Y-NH2."
US-08-485-886-54
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           9 PND 11
Qу
            111
           7 PND 9
Db
RESULT 49
US-08-485-886-181
; Sequence 181, Application US/08485886
; Patent No. 5798248
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
```

```
ADDRESSEE: MORRISON & FOERSTER
       STREET: 755 Page Mill Road
       CITY: Palo Alto
       STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/485,886
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 181:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is (Cha)."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
                 4
      OTHER INFORMATION: /note= "This position is (Cha)."
US-08-485-886-181
                         27.3%; Score 3; DB 1; Length 11;
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                         100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
           3; Conservative 0; Mismatches 0; Indels
 Matches
                                                                0; Gaps
                                                                            0;
           9 PND 11
Qу
             +111
Db
           8 PND 10
RESULT 50
US-08-459-568-6
; Sequence 6, Application US/08459568
; Patent No. 5811304
; GENERAL INFORMATION:
    APPLICANT: Huang, Shi
```

```
TITLE OF INVENTION: Retinoblastoma Protein - Interacting
    TITLE OF INVENTION: Zinc Finger Proteins
    NUMBER OF SEQUENCES: 93
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Campbell and Flores
;
      STREET: 4370 La Jolla Village Drive, Suite 700
      CITY: San Diego
      STATE: California
      COUNTRY: USA
      ZIP: 92122
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/459,568
      FILING DATE: 02-JUN-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/399,411
      FILING DATE: 06-MAR-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: Campbell, Cathryn A.
      REGISTRATION NUMBER: 31,815
      REFERENCE/DOCKET NUMBER: P-LJ 1264
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (619) 535-9001
      TELEFAX: (619) 535-8949
  INFORMATION FOR SEQ ID NO: 6:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-08-459-568-6
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                                                               0; Gaps
                                                                           0;
 Matches
          3; Conservative 0; Mismatches
                                               0; Indels
           4 EKP 6
Qу
             -111
           6 EKP 8
Db
RESULT 51
US-08-459-568-91
; Sequence 91, Application US/08459568
; Patent No. 5811304
   GENERAL INFORMATION:
    APPLICANT: Huang, Shi
    TITLE OF INVENTION: Retinoblastoma Protein - Interacting
    TITLE OF INVENTION: Zinc Finger Proteins
    NUMBER OF SEQUENCES: 93
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Campbell and Flores
      STREET: 4370 La Jolla Village Drive, Suite 700
```

```
CITY: San Diego
      STATE: California
      COUNTRY: USA
;
      ZIP: 92122
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/459,568
      FILING DATE: 02-JUN-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/399,411
      FILING DATE: 06-MAR-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: Campbell, Cathryn A.
      REGISTRATION NUMBER: 31,815
      REFERENCE/DOCKET NUMBER: P-LJ 1264
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (619) 535-9001
      TELEFAX: (619) 535-8949
  INFORMATION FOR SEQ ID NO: 91:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-08-459-568-91
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative
                               0; Mismatches 0; Indels
                                                               0; Gaps
                                                                            0;
           4 EKP 6
QУ
             111
           6 EKP 8
Db
RESULT 52
US-08-796-598-7
; Sequence 7, Application US/08796598
; Patent No. 5827659
  GENERAL INFORMATION:
    APPLICANT: PATTERSON, DALE H.
    APPLICANT: TARR, GEORGE E.
    TITLE OF INVENTION: METHODS AND APPARATUS FOR SEQUENCING
    TITLE OF INVENTION: POLYMERS USING MASS SPECTROMETRY.
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Patent Administrator - Testa, Hurwitz &
      ADDRESSEE:
                  Thibeault
;
      STREET: High Street Tower, 125 High Street
;
      CITY: Boston
      STATE: MA
      COUNTRY: USA
      ZIP: 02110
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COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
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    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/796,598
      FILING DATE: 07-FEB-1997
      CLASSIFICATION: 435
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/446,055
      FILING DATE: 19-MAY-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: FLYNN Esq., Kerry A.
      REGISTRATION NUMBER: 33,693
      REFERENCE/DOCKET NUMBER: SYP-115
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 248-7000
      TELEFAX: (617) 248-7100
  INFORMATION FOR SEQ ID NO: 7:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-796-598-7
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 Best Local Similarity
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                                                                            0;
 Matches 3; Conservative
           6 PNK 8
Qy
             \perp
           4 PNK 6
Db
RESULT 53
US-08-399-411-6
; Sequence 6, Application US/08399411
; Patent No. 5831008
  GENERAL INFORMATION:
    APPLICANT: Huang, Shi
    TITLE OF INVENTION: Retinoblastoma Protein - Interacting
    TITLE OF INVENTION: Zinc Finger Proteins
    NUMBER OF SEQUENCES: 93
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Campbell and Flores
      STREET: 4370 La Jolla Village Drive, Suite 700
      CITY: San Diego
;
      STATE: California
      COUNTRY: USA
;
      ZIP: 92122
;
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/399,411
      FILING DATE: 06-MAR-1995
       CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
      NAME: Campbell, Cathryn A.
      REGISTRATION NUMBER: 31,815
      REFERENCE/DOCKET NUMBER: P-LJ 1264
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (619) 535-9001
      TELEFAX: (619) 535-8949
  INFORMATION FOR SEQ ID NO: 6:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-08-399-411-6
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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 Matches
            3; Conservative
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                                                               0; Gaps
                                                                            0;
           4 EKP 6
Qу
             \perp
           6 EKP 8
Db
RESULT 54
US-08-399-411-91
; Sequence 91, Application US/08399411
; Patent No. 5831008
  GENERAL INFORMATION:
     APPLICANT: Huang, Shi
    TITLE OF INVENTION: Retinoblastoma Protein - Interacting
     TITLE OF INVENTION: Zinc Finger Proteins
    NUMBER OF SEQUENCES: 93
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Campbell and Flores
      STREET: 4370 La Jolla Village Drive, Suite 700
      CITY: San Diego
       STATE: California
      COUNTRY: USA
      ZIP: 92122
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/399,411
       FILING DATE: 06-MAR-1995
      CLASSIFICATION: 530
     ATTORNEY/AGENT INFORMATION:
      NAME: Campbell, Cathryn A.
      REGISTRATION NUMBER: 31,815
       REFERENCE/DOCKET NUMBER: P-LJ 1264
```

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TELECOMMUNICATION INFORMATION:
       TELEPHONE: (619) 535-9001
      TELEFAX: (619) 535-8949
   INFORMATION FOR SEQ ID NO: 91:
     SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-08-399-411-91
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           4 EKP 6
Qу
             6 EKP 8
RESULT 55
US-08-477-362-20
; Sequence 20, Application US/08477362
; Patent No. 5849507
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
;
      ZIP: 94304-1018
     COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
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      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,362
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
  INFORMATION FOR SEQ ID NO: 20:
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SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
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      NAME/KEY: Modified-site
      LOCATION: 3
       OTHER INFORMATION: /note= "This position is Cha."
     FEATURE:
      NAME/KEY: Modified-site
       LOCATION:
       OTHER INFORMATION: /note= "This position is Cha."
US-08-477-362-20
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.3e+03;
 Matches
            3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            9 PND 11
Qу
              +111
Db
            8 PND 10
RESULT 56
US-08-477-362-28
; Sequence 28, Application US/08477362
; Patent No. 5849507
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: MORRISON & FOERSTER
       STREET: 755 Page Mill Road
      CITY: Palo Alto
;
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,362
       FILING DATE: 07-JUN-1995
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
       FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
       REFERENCE/DOCKET NUMBER: 22000-20502.20
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TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 28:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
US-08-477-362-28
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches 3; Conservative 0; Mismatches
                                               0; Indels
                                                            0; Gaps
           9 PND 11
Qу
             7 PND 9
RESULT 57
US-08-477-362-37
; Sequence 37, Application US/08477362
; Patent No. 5849507
; GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,362
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
```

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REGISTRATION NUMBER: 29,959
       REFERENCE/DOCKET NUMBER: 22000-20502.20
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
;
       TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 37:
     SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
       TYPE: amino acid
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;
       STRANDEDNESS: single
      TOPOLOGY: linear
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    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
      OTHER INFORMATION: /note= "This position is Mpr,
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      OTHER INFORMATION: S-Me Mpr or Mba."
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      NAME/KEY: Modified-site
      LOCATION:
;
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     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
US-08-477-362-37
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  Matches
          3; Conservative 0; Mismatches 0; Indels
                                                                            0;
           9 PND 11
Qy
             111
Db
           7 PND 9
RESULT 58
US-08-477-362-39
; Sequence 39, Application US/08477362
; Patent No. 5849507
   GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
     TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
;
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,362
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      STRANDEDNESS: single
;
      TOPOLOGY: linear
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      NAME/KEY: Modified-site
      LOCATION: 1
;
      OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
    FEATURE:
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      NAME/KEY: Modified-site
;
      LOCATION:
;
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
    NAME/KEY: Modified-site
      LOCATION: 11
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US-08-477-362-39
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                         27.3%; Score 3; DB 2; Length 11;
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           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
 Matches
Qу
           9 PND 11
             -111
Db
           7 PND 9
RESULT 59
US-08-477-362-52
; Sequence 52, Application US/08477362
; Patent No. 5849507
; GENERAL INFORMATION:
   APPLICANT: COUGHLIN, SHAUN R.
   APPLICANT: SCARBOROUGH, ROBERT M.
```

```
TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
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      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,362
;
      FILING DATE: 07-JUN-1995
;
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
;
      FILING DATE: 07-NOV-1991
;
    ATTORNEY/AGENT INFORMATION:
     NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
;
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS: single
;
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
;
      LOCATION: 1
;
      OTHER INFORMATION: /note= "This position is Mpr."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
;
      OTHER INFORMATION: /note= "This position is Cha."
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      LOCATION:
      OTHER INFORMATION: /note= "This position is Cha."
US-08-477-362-52
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          3; Conservative 0; Mismatches 0; Indels
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 Matches
           9 PND 11
Qу
             111
Db
           7 PND 9
```

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RESULT 60
US-08-477-362-54
; Sequence 54, Application US/08477362
; Patent No. 5849507
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM: /
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,362
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
       FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
       REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
  INFORMATION FOR SEQ ID NO: 54:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
                 1
      OTHER INFORMATION: /note= "This position is Mpr."
     FEATURE:
                 Modified-site
      NAME/KEY:
      LOCATION:
                 3
      OTHER INFORMATION: /note= "This position is Cha."
     FEATURE:
      NAME/KEY:
                 Modified-site
      LOCATION:
      OTHER INFORMATION: /note= "This position is Cha."
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```
FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 11
      OTHER INFORMATION: /note= "This position is Y-NH2."
US-08-477-362-54
                         27.3%; Score 3; DB 2; Length 11;
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  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches
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                                               0; Indels
           9 PND 11
Qу
             \perp
           7 PND 9
Db
RESULT 61
US-08-477-362-181
; Sequence 181, Application US/08477362
; Patent No. 5849507
  GENERAL INFORMATION:
     APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,362
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 181:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
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TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is (Cha)."
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is (Cha)."
US-08-477-362-181
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
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Qу
           9 PND 11
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Dh
           8 PND 10
RESULT 62
US-08-754-773B-2
; Sequence 2, Application US/08754773B
; Patent No. 5854005
  GENERAL INFORMATION:
    APPLICANT: Coller, Barry S.
    TITLE OF INVENTION: PLATELET BLOCKADE ASSAY
    NUMBER OF SEQUENCES: 10
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Heller Ehrman White & McAuliffe
      STREET: 525 University Avenue
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94301-1900
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/754,773B
      FILING DATE: 11/20/96
      CLASSIFICATION: 436
    ATTORNEY/AGENT INFORMATION:
      NAME: Schmonsees, William
      REGISTRATION NUMBER: 31,796
      REFERENCE/DOCKET NUMBER: 22608-0006
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 324-7041
      TELEFAX: (415) 324-0638
   INFORMATION FOR SEQ ID NO: 2:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: unknown
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MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
     FRAGMENT TYPE: N-terminal
US-08-754-773B-2
  Query Match
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                                                                0; Gaps
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Qу
           9 PND 11
             III
Db
           7 PND 9
RESULT 63
US-08-754-773B-5
; Sequence 5, Application US/08754773B
; Patent No. 5854005
  GENERAL INFORMATION:
    APPLICANT: Coller, Barry S.
    TITLE OF INVENTION: PLATELET BLOCKADE ASSAY
    NUMBER OF SEQUENCES: 10
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Heller Ehrman White & McAuliffe
      STREET: 525 University Avenue
      CITY: Palo Alto
      STATE: California
;
      COUNTRY: USA
;
      ZIP: 94301-1900
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/754,773B
      FILING DATE: 11/20/96
      CLASSIFICATION: 436
    ATTORNEY/AGENT INFORMATION:
      NAME: Schmonsees, William
      REGISTRATION NUMBER: 31,796
      REFERENCE/DOCKET NUMBER: 22608-0006
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 324-7041
      TELEFAX: (415) 324-0638
   INFORMATION FOR SEQ ID NO: 5:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FRAGMENT TYPE: N-terminal
    FEATURE:
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NAME/KEY: Modified-site
       LOCATION: 1
       OTHER INFORMATION: /product= "OTHER"
       OTHER INFORMATION: /note= ""xaa=isoserine""
US-08-754-773B-5
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           9 PND 11
Qy
             111
           7 PND 9
Db
RESULT 64
US-08-477-134-20
; Sequence 20, Application US/08477134
; Patent No. 5856448
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
       ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,134
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 536
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 20:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
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TOPOLOGY: linear
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
                3
       OTHER INFORMATION: /note= "This position is Cha."
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
US-08-477-134-20
  Query Match
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  Best Local Similarity
                         100.0%; Pred. No. 2.3e+03;
                                                0; Indels
  Matches
           3; Conservative 0; Mismatches
                                                                0; Gaps
                                                                            0;
Qу
           9 PND 11
             \mathbf{I}
Db
           8 PND 10
RESULT 65
US-08-477-134-28
; Sequence 28, Application US/08477134
; Patent No. 5856448
   GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
     APPLICANT: SCARBOROUGH, ROBERT M.
     TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,134
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 536
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
     ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
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INFORMATION FOR SEQ ID NO:
     SEOUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     FEATURE:
       NAME/KEY: Modified-site
       LOCATION: 1
       OTHER INFORMATION: /note= "This position is Mpr,
       OTHER INFORMATION: S-Me Mpr or Mba."
US-08-477-134-28
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.3e+03;
                                                   0; Indels
            3; Conservative
                                 0; Mismatches
                                                                 0; Gaps
                                                                              0;
            9 PND 11
Qу
              7 PND 9
RESULT 66
US-08-477-134-37
; Sequence 37, Application US/08477134
; Patent No. 5856448
   GENERAL INFORMATION:
     APPLICANT: COUGHLIN, SHAUN R. APPLICANT: SCARBOROUGH, ROBERT M.
;
     TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
     TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: MORRISON & FOERSTER
       STREET: 755 Page Mill Road
       CITY: Palo Alto
       STATE: California
;
       COUNTRY: USA
;
       ZIP: 94304-1018
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/477,134
       FILING DATE: 07-JUN-1995
       CLASSIFICATION: 536
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 07/789,184
       FILING DATE: 07-NOV-1991
     ATTORNEY/AGENT INFORMATION:
       NAME: MURASHIGE, KATE H.
       REGISTRATION NUMBER: 29,959
       REFERENCE/DOCKET NUMBER: 22000-20502.20
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
```

```
TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 37:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
      OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
                 Modified-site
      NAME/KEY:
      LOCATION:
                 4
      OTHER INFORMATION: /note= "This position is Cha."
US-08-477-134-37
 Query Match
                         27.3%; Score 3; DB 2; Length 11;
                         100.0%; Pred. No. 2.3e+03;
 Best Local Similarity
 Matches
            3; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
           9 PND 11
Qy
              | | | |
            7 PND 9
Db
RESULT 67
US-08-477-134-39
; Sequence 39, Application US/08477134
; Patent No. 5856448
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
       ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
                        PC-DOS/MS-DOS
      OPERATING SYSTEM:
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,134
      FILING DATE: 07-JUN-1995
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```
CLASSIFICATION: 536
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
       FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
      TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 39:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr,
      OTHER INFORMATION: S-Me Mpr or Mba."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
;
      NAME/KEY: Modified-site
;
      LOCATION:
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 11
      OTHER INFORMATION: /note= "This position is Y-NH2."
US-08-477-134-39
                         27.3%; Score 3; DB 2; Length 11;
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 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           9 PND 11
Qy
             +11
           7 PND 9
Db
RESULT 68
US-08-477-134-52
; Sequence 52, Application US/08477134
; Patent No. 5856448
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
;
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
;
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
```

```
ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,134
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 536
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
  INFORMATION FOR SEQ ID NO: 52:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
;
      LOCATION: 1
      OTHER INFORMATION: /note= "This position is Mpr."
    FEATURE:
     NAME/KEY: Modified-site
;
      LOCATION: 3
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 4
      OTHER INFORMATION: /note= "This position is Cha."
US-08-477-134-52
 Query Match
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 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels
           9 PND 11
Qу
             -111
           7 PND 9
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RESULT 69 US-08-477-134-54

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; Sequence 54, Application US/08477134
; Patent No. 5856448
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,134
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 536
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
      FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 813-5600
      TELEFAX: (415) 494-0792
      TELEX: 34-0154
  INFORMATION FOR SEQ ID NO: 54:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
      OTHER INFORMATION: /note= "This position is Mpr."
    FEATURE:
                Modified-site
      NAME/KEY:
      LOCATION:
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
                 Modified-site
      NAME/KEY:
      LOCATION:
      OTHER INFORMATION: /note= "This position is Cha."
    FEATURE:
      NAME/KEY:
                 Modified-site
      LOCATION:
      OTHER INFORMATION: /note= "This position is Y-NH2."
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Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches
                                                                            0;
  Matches
                                               0; Indels
                                                                0; Gaps
           9 PND 11
Qу
             -111
Db
           7 PND 9
RESULT 70
US-08-477-134-181
; Sequence 181, Application US/08477134
; Patent No. 5856448
  GENERAL INFORMATION:
    APPLICANT: COUGHLIN, SHAUN R.
    APPLICANT: SCARBOROUGH, ROBERT M.
    TITLE OF INVENTION: RECOMBINANT THROMBIN RECEPTOR AND
    TITLE OF INVENTION: RELATED PHARMACEUTICALS
    NUMBER OF SEQUENCES: 223
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 755 Page Mill Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94304-1018
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/477,134
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 536
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/789,184
       FILING DATE: 07-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: MURASHIGE, KATE H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20502.20
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 813-5600
       TELEFAX: (415) 494-0792
       TELEX: 34-0154
   INFORMATION FOR SEQ ID NO: 181:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 3
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```
OTHER INFORMATION: /note= "This position is (Cha)."
      NAME/KEY: Modified-site
      LOCATION: 4
       OTHER INFORMATION: /note= "This position is (Cha)."
US-08-477-134-181
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
            3: Conservative 0: Mismatches 0: Indels
                                                                0; Gaps
                                                                            0;
           9 PND 11
Qv
             111
Db
           8 PND 10
RESULT 71
US-08-539-005-38
; Sequence 38, Application US/08539005
; Patent No. 5858686
   GENERAL INFORMATION:
     APPLICANT: Schlessinger, Joseph
    APPLICANT: Skolnick, Edward Y.
    APPLICANT: Margolis, Benjamin L.
     TITLE OF INVENTION: NOVEL EXPRESSION CLONING METHOD FOR
    TITLE OF INVENTION: IDENTIFYING TARGET PROTEINS FOR EUKARYOTIC TYROSINE
    TITLE OF INVENTION: KINASES AND NOVEL TARGET PROTEINS
    NUMBER OF SEQUENCES: 50
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: PENNIE & EDMONDS
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: 10036-2711
      ZIP: 10036-2711
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/539,005
      FILING DATE: 4-OCT-1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/167,035
      FILING DATE: 16-DEC-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Coruzzi, Laura A.
      REGISTRATION NUMBER: 30,742
      REFERENCE/DOCKET NUMBER: 7683-062
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 38:
```

```
SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-539-005-38
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                                                                  0; Gaps
            3; Conservative
                                0; Mismatches 0; Indels
                                                                              0;
 Matches
            5 KPN 7
Qу
              111
            1 KPN 3
Db
RESULT 72
US-08-447-175A-7
; Sequence 7, Application US/08447175A; Patent No. 5869240
   GENERAL INFORMATION:
    APPLICANT: PATTERSON, DALE H.
    TITLE OF INVENTION: METHODS AND APPARATUS FOR SEQUENCING
    TITLE OF INVENTION: POLYMERS WITH A STATISTICAL CERTAINTY USING MASS
    TITLE OF INVENTION: SPECTROMETRY.
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: Patent Administrator - Testa, Hurwitz &
       ADDRESSEE: Thibeault, LLP
       STREET: High Street Tower, 125 High Street
       CITY: Boston
       STATE: MA
       COUNTRY: USA
       ZIP: 02110
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/447,175A
       FILING DATE: 19-MAY-1995
      CLASSIFICATION: 422
    ATTORNEY/AGENT INFORMATION:
      NAME: RAUSCHENBACH, Kurt
       REGISTRATION NUMBER: 40,137
       REFERENCE/DOCKET NUMBER: SYP-114
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (617) 248-7000
       TELEFAX: (617) 248-7100
   INFORMATION FOR SEQ ID NO: 7:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
;
       STRANDEDNESS: single
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
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Query Match
                         27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                              0; Mismatches
                                                                          0;
            3; Conservative
                                               0; Indels
                                                               0; Gaps
           6 PNK 8
Qу
             111
           4 PNK 6
RESULT 73
US-08-538-960-8
; Sequence 8, Application US/08538960
; Patent No. 5872230
  GENERAL INFORMATION:
    APPLICANT: Stocco, Douglas M.
    APPLICANT: Clark, Barbara J.
    TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
    TITLE OF INVENTION: REGULATION OF STEROIDOGENESIS
;
    NUMBER OF SEQUENCES: 14
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Akin, Gump, Strauss, Hauer & Feld, L.L.P.
      STREET: 1900 Frost Bank Plaza, 816 Congress Avenue
      CITY: Austin
      STATE: TX
      COUNTRY: U.S.A.
      ZIP: 78701
;
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/538,960
      FILING DATE: Concurrently Herewith
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
;
      NAME: Mayfield, Denise L.
      REGISTRATION NUMBER: 33,732
      REFERENCE/DOCKET NUMBER: 43375.0002/DLM
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 512/499-6200
      TELEFAX: 512/499-6290
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-538-960-8
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
                         100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
            3; Conservative
                             0; Mismatches
                                                               0; Gaps
                                                                           0;
  Matches
                                               0; Indels
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2 KKE 4
Qу
             9 KKE 11
Db
RESULT 74
US-08-934-222-29
; Sequence 29, Application US/08934222
; Patent No. 5928896
  GENERAL INFORMATION:
    APPLICANT: EVANS, Herbert J.
    APPLICANT: KINI, R. Manjunatha
    TITLE OF INVENTION: Polypeptides That Include Conformation-
    TITLE OF INVENTION: Constraining Groups Which Flank A Protein-Protein
Interaction
    TITLE OF INVENTION: Site
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Foley & Lardner
;
      STREET: Suite 500, 3000 K Street NW
;
      CITY: Washington
      STATE: DC
      COUNTRY: USA
      ZIP: 20007
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/934,222
      FILING DATE: 19-SEPT-1997
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/532,818
      FILING DATE: 03-MAY-1996
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: U.S. 08/143,364
;
      FILING DATE: 29-OCT-1993
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/051,741
      FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Isacson, John P.
      REGISTRATION NUMBER: 33,751
      REFERENCE/DOCKET NUMBER: 040433/0148
  INFORMATION FOR SEQ ID NO: 29:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-08-934-222-29
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
```

7 NKP 9

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Qy

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RESULT 75
US-08-934-222-108
; Sequence 108, Application US/08934222
; Patent No. 5928896
   GENERAL INFORMATION:
     APPLICANT: EVANS, Herbert J.
     APPLICANT: KINI, R. Manjunatha
     TITLE OF INVENTION: Polypeptides That Include Conformation-
     TITLE OF INVENTION: Constraining Groups Which Flank A Protein-Protein
Interaction
     TITLE OF INVENTION:
                          Site
     NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Foley & Lardner
       STREET: Suite 500, 3000 K Street NW
       CITY: Washington
       STATE: DC
       COUNTRY: USA
       ZIP: 20007
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/934,222
       FILING DATE: 19-SEPT-1997
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/532,818
       FILING DATE: 03-MAY-1996
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/143,364
       FILING DATE: 29-OCT-1993
;
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: U.S. 08/051,741
       FILING DATE: 23-APR-1993
    ATTORNEY/AGENT INFORMATION:
       NAME: Isacson, John P.
       REGISTRATION NUMBER: 33,751
       REFERENCE/DOCKET NUMBER: 040433/0148
   INFORMATION FOR SEQ ID NO: 108:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY:
                 linear
US-08-934-222-108
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.3e+03;
             3; Conservative
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 Matches
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                                                     Indels
                                                                 0; Gaps
                                                                             0;
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Search completed: April $\,$ 8, 2004, 15:52:13 $\,$ Job time : 12.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 8.61538 Seconds

(without alignments)

122.816 Million cell updates/sec

226

Title: US-09-787-443A-17

Perfect score: 11

Sequence: 1 AKKEKPNKPND 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 283366 seqs, 96191526 residues

Word size: 0

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database : PIR_78:*

1: pir1:* 2: pir2:* 3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	<pre>% Query Match</pre>	Length	DB	ID	Description
1	3	27.3	11	2	s07201	physalaemin - frog
2	3	27.3	11	2	D61033	ranatachykinin D -
3	. 3	27.3	11	2	PD0441	translation elonga
4	2	18.2	11	1	SPHO	substance P - hors
5	2	18.2	11	1	A60654	substance P - guin
6	2	18.2	11	2	A38841	rhodopsin homolog
7	2	18.2	11	2	PQ0682	photosystem I 17.5
8	2	18.2	11	2	C53652	rhlR protein - Pse
9	2	18.2	11	2	A26930	ermG leader peptid
10	2	18.2	11	2	D60409	kassinin-like pept
11	2	18.2	11	2	F60409	substance P-like p
12	2	18.2	11	2	E60409	substance P-like p
13	2	18.2	11	2	S23308	substance P - rain

14	2	18.2	11	2	S23306	substance P - Atla
15	2	18.2	11	2	C60409	kassinin-like pept
16	2	18.2	11	2	S07203	uperolein - frog (
17	2	18.2	11	2	A61033	ranatachykinin A -
18	2	18.2	11	2	S42449	ant1 protein - pha
19	2	18.2	11	2	JQ0395	hypothetical prote
20	2	18.2	11	2	PQ0231	beta-glucosidase (
21	2	18.2	11	2	S66606	quinoline 2-oxidor
						_
22	2	18.2	11	2	A58838	hemolysin - Porphy
23	2	18.2	11	2	B43669	hypothetical prote
24	2	18.2	11	2	PC2372	58K heat shock pro
25	2	18.2	11	2	B41835	translation elonga
26	2	18.2	11	2	\$33519	probable secreted
				2		protein QA300023 -
27	2	18.2	11		PT0081	
28	2	18.2	11	2	PA0028	protein QA300042 -
29	2	18.2	11	2	C59151	protein-tyrosine k
30	2	18.2	11	2	G61497	seed protein ws-23
31	2	18.2	11	2	s19775	wound-induced prot
32	2	18.2	11	2	S71304	amine oxidase (cop
33	2	18.2	11	2	A26120	6-phosphofructokin
34	2	18.2	11	2	s69349	neuropeptide FFami
35	2	18.2	11	2	I41978	calliFMRFamide 9 -
36	2	18.2	11	2	S33300	probable substance
37	2	18.2	11	2	A33571	follistatin - bovi
38	2	18.2	11	2	S23926	major glycoprotein
39	2	18.2	11	2	A14454	6-phosphofructokin
				2	PH1376	T antigen variant
40	2	18.2	11			
41	2	18.2	11	2	s65377	cytochrome-c oxida
42	2	18.2	11	2	PH0939	T-cell receptor be
43	2	18.2	11	2	H84082	hypothetical prote
44	2	18.2	11	4	S19015	hypothetical prote
45	1	9.1	11	1	XAVIBH	bradykinin-potenti
46	. 1	9.1	11	1	XASNBA	bradykinin-potenti
47	1	9.1	11	1	ECLQ2M	tachykinin II - mi
48	1	9.1	11	1	EOOCC	eledoisin - curled
						eledoisin - musky
49	1	9.1	11	1	EOOC	
50	1	9.1	11	1	GMROL	leucosulfakinin -
51	1.	9.1	11	1	LFTWWE	probable trpEG lea
52	1	9.1	11	2	S66196	alcohol dehydrogen
53	1	9.1	11	2	G42762	proteasome endopep
54	1	9.1	11	2	S68392	H+-transporting tw
55	1	9.1	.11	2	A33917	dihydroorotase (EC
56	1	9.1	11	2	B49164	chromogranin-B - r
57		9.1	11	2	JN0023	substance P - chic
	1					
58	1	9.1	11	2	S32575	ribosomal protein
59	1	9.1	11	2	A40693	transgelin - sheep
60	1	9.1	11	2	S00616	parasporal crystal
61	1	9.1	11	2	S09074	cytochrome P450-4b
62	1	9.1	11	2	A57458	gene Gax protein -
63	1	9.1	11	2	YHRT	morphogenetic neur
64	1	9.1	11	2	YHHU	morphogenetic neur
						morphogenetic neur
65	1	9.1	11	2	YHBO	
66	1	9.1	11	2	YHXAE	morphogenetic neur
67	1	9.1	11	2	YHJFHY	morphogenetic neur
68	1	9.1	11	2	A61365	phyllokinin - Rohd
69	1	9.1	11	2	B26744	megascoliakinin -
70	1	9.1	11	2	B60409	kassinin-like pept
	_					

71	1	9.1	11	2	S07207	Crinia-angiotensin
72	1	9.1	11	2	B58501	24K kidney and bla
73	1	9.1	11	2	D58502	27K bile and gallb
74	1	9.1	11	2	A58502	38K kidney stone p
75	1	9.1	11	2	C58501	42K bile stone pro
76	1	9.1	11	2	F58501	43.5K bile stone p
77	1	9.1	11	2	S58244	pyrroloquinoline q
78	1	9.1	11	2	S04875	nifS protein - Bra
79	1	9.1	11	2	I41138	acetyl ornithine d
80	1	9.1	11	2	S42587	celF protein - Esc
81	1	9.1	11	2	S35490	type II site-speci
82	1	9.1	11	2	S21127	precorrin methyltr
83	1	9.1	11	2	s70720	trigger factor hom
84	. 1	9.1	11	2	S33782	acetolactate synth
85	1	9.1	11	2	B39853	LuxC protein - Pho
86	1	9.1	11	2	E60691	phycobilisome 8K l
87	1	9.1	11	2	D60691	phycobilisome 9K l
88	1	9.1	11	2	PC2330	cycloinulooligosac
89	1	9.1	11	2	S14087	parasporal crystal
90	1	9.1	11	2	A44755	20alpha-hydroxyste
91	1	9.1	11	2	E41476	probable antigen 5
92	1	9.1	11	2	A55149	tetracenomycin A2
93	1	9.1	11	2	S19301	endo-1,4-beta-xyla
94	1	9.1	11	2	H54346	pyruvate synthase
95	1	9.1	11	2	s70338	napin small chain
96	1	9.1	11	2	т06383	hypothetical prote
97	1	9.1	11	2	C61497	seed protein ws-18
98	1	9.1	11	2	JQ2307	hypothetical 1.5K
99	1	9.1	11	2	S41747	chaperonin 10 homo
100	1	9.1	11	2	JQ2317	hypothetical 1.5K

ALIGNMENTS

```
RESULT 1
S07201
physalaemin - frog (Physalaemus fuscomaculatus)
C; Species: Physalaemus fuscomaculatus
C;Date: 12-Feb-1993 #sequence revision 12-Mar-1993 #text change 18-Aug-2000
C; Accession: S07201
R; Erspamer, V.; Anastasi, A.; Bertaccini, G.; Cei, J.M.
Experientia 20, 489-490, 1964
A; Title: Structure and pharmacological actions of physalaemin, the main active
polypeptide of the skin of Physalaemus fuscumaculatus.
A; Reference number: S07201; MUID: 66076612; PMID: 5857249
A; Accession: S07201
A; Molecule type: protein
A; Residues: 1-11 <ERS>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid; skin; tachykinin
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
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100.0%; Pred. No. 2.7e+03;

0; Indels

0;

0; Gaps

Best Local Similarity

Matches 3; Conservative 0; Mismatches

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6 PNK 8
Qу
              +111
            4 PNK 6
Db
RESULT 2
D61033
ranatachykinin D - bullfrog
C; Species: Rana catesbeiana (bullfrog)
C;Date: 31-Dec-1993 #sequence revision 31-Dec-1993 #text change 18-Aug-2000
C; Accession: D61033; JE0429
R; Kangawa, K.; Kozawa, H.; Hino, J.; Minamino, N.; Matsuo, H.
Regul. Pept. 42(Suppl.1), S12, 1992
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
A; Reference number: A61033
A; Accession: D61033
A; Molecule type: protein
A; Residues: 1-11 <KAN>
R; Kozawa, H.; Hino, J.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 177, 588-595, 1991
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
A; Reference number: JE0426; MUID: 91254337; PMID: 2043143
A; Accession: JE0429
A; Molecule type: protein
A; Residues: 1-11 <KOZ>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; neuropeptide
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                          27.3%; Score 3; DB 2; Length 11;
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  Best Local Similarity
                          100.0%; Pred. No. 2.7e+03;
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             3; Conservative
                                0; Mismatches
  Matches
            5 KPN 7
Qу
              \perp
            1 KPN 3
Db
RESULT 3
PD0441
translation elongation factor TU-like protein P43, mitochondrial - mouse
C; Species: Mus musculus (house mouse)
C;Date: 21-Aug-1998 #sequence revision 21-Aug-1998 #text change 21-Aug-1998
C; Accession: PD0441
R; Kawakami, T.; Uchida, T.; Sakai, T.; Kamo, M.; Morimasa, T.; Tsugita, A.
submitted to JIPID, August 1998
A; Description: Proteome analysis of mouse brain.
A; Reference number: PD0441
A; Accession: PD0441
A; Molecule type: protein
A; Residues: 1-11 <KAW>
A; Experimental source: striatum
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C; Keywords: mitochondrion

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27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
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                                0; Mismatches
 Matches
            3; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
            1 AKK 3
Qy
              \mathbf{H}\mathbf{H}
Db
            4 AKK 6
RESULT 4
SPHO
substance P - horse
C; Species: Equus caballus (domestic horse)
C; Date: 23-Oct-1981 #sequence revision 23-Oct-1981 #text change 23-Aug-1996
C; Accession: A01558
R; Studer, R.O.; Trzeciak, A.; Lergier, W.
Helv. Chim. Acta 56, 860-866, 1973
A; Title: Isolierung und Aminosaeuresequenz von Substanz P aus Pferdedarm.
A; Reference number: A01558
A; Accession: A01558
A; Molecule type: protein
A; Residues: 1-11 <STU>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone
F;11/Modified site: amidated carboxyl end (Met) #status experimental
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 Matches
            2; Conservative
            5 KP 6
Qу
              11
Db
            3 KP 4
RESULT 5
A60654
substance P - guinea pig
C; Species: Cavia porcellus (guinea pig)
C;Date: 14-May-1993 #sequence revision 27-Jun-1994 #text change 08-Dec-1995
C; Accession: A60654
R; Murphy, R.
Neuropeptides 14, 105-110, 1989
A; Title: Primary amino acid sequence of guinea-pig substance P.
A; Reference number: A60654; MUID: 90044685; PMID: 2478925
A; Accession: A60654
A; Molecule type: protein
A; Residues: 1-11 < MUR>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status experimental
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  Matches
             2; Conservative
                                                   0; Indels
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5 KP 6
Qy
              -11
Db
            3 KP 4
RESULT 6
A38841
rhodopsin homolog - squid (Watasenia scintillans) (fragment)
N; Alternate names: visual pigment protein
C; Species: Watasenia scintillans (sparkling enope)
C;Date: 17-Jul-1992 #sequence revision 17-Jul-1992 #text change 31-Oct-1997
C; Accession: A38841
R; Seidou, M.; Kubota, I.; Hiraki, K.; Kito, Y.
Biochim. Biophys. Acta 957, 318-321, 1988
A; Title: Amino acid sequence of the retinal binding site of squid visual
pigment.
A; Reference number: PT0063; MUID: 89051045; PMID: 3191148
A; Accession: A38841
A; Molecule type: protein
A; Residues: 1-11 <SEI>
C; Superfamily: vertebrate rhodopsin
C; Keywords: chromoprotein; retinal
F;3/Binding site: retinal (Lys) (covalent) #status experimental
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                          100.0%; Pred. No. 2.6e+04;
                                                                               0;
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                                                       Indels
                                                                  0;
                                                                      Gaps
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             2;
            1 AK 2
Qу
            2 AK 3
RESULT 7
PO0682
photosystem I 17.5K D2 chain - common tobacco (fragment)
C; Species: Nicotiana tabacum (common tobacco)
C;Date: 19-May-1994 #sequence revision 19-May-1994 #text_change 17-Mar-1999
C; Accession: PQ0682
R;Obokata, J.; Mikami, K.; Hayashida, N.; Nakamura, M.; Sugiura, M.
Plant Physiol. 102, 1259-1267, 1993
A; Title: Molecular heterogeneity of photosystem I. psaD, psaE, psaF, psaH and
psaL are all present in isoforms in Nicotiana spp.
A; Reference number: PQ0667; MUID: 94105345; PMID: 8278548
A; Accession: PQ0682
A; Molecule type: protein
A; Residues: 1-11 <OBO>
C; Superfamily: photosystem I chain II
C; Keywords: chloroplast; photosynthesis; photosystem I; thylakoid
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            3 KE 4
Qу
              11
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7 KE 8

Dh

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C53652
rhlR protein - Pseudomonas aeruginosa (fragment)
C; Species: Pseudomonas aeruginosa
C;Date: 21-Jul-1995 #sequence_revision 28-Jul-1995 #text change 21-Aug-1998
C; Accession: C53652
R; Ochsner, U.A.; Fiechter, A.; Reiser, J.
J. Biol. Chem. 269, 19787-19795, 1994
A; Title: Isolation, characterization, and expression in Escherichia coli of the
Pseudomonas aeruginosa rhlAB genes encoding a rhamnosyltransferase involved in
rhamnolipid biosurfactant synthesis.
A; Reference number: A53652; MUID: 94327521; PMID: 8051059
A; Accession: C53652
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <OCH>
A; Cross-references: GB:L28170
C; Superfamily: sdiA regulatory protein
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             2; Conservative
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           10 ND 11
Qу
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Dh
RESULT 9
A26930
ermG leader peptide 1 - Bacillus sphaericus
C; Species: Bacillus sphaericus
C;Date: 08-Mar-1989 #sequence revision 08-Mar-1989 #text change 24-Sep-1999
C; Accession: A26930
R; Monod, M.; Mohan, S.; Dubnau, D.
J. Bacteriol. 169, 340-350, 1987
A; Title: Cloning and analysis of ermG, a new macrolide-lincosamide-streptogramin
B resistance element from Bacillus sphaericus.
A; Reference number: A91840; MUID: 87083389; PMID: 3025178
A; Accession: A26930
A; Molecule type: DNA
A; Residues: 1-11 < MON>
A; Cross-references: GB:M15332; NID:g142881; PIDN:AAA22417.1; PID:g142882
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Qу
              11
            2 NK 3
Db
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kassinin-like peptide K-III - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
C; Accession: D60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: D60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
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            6 PN 7
Qу
              11
Db
            4 PN 5
RESULT 11
F60409
substance P-like peptide II - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
C; Accession: F60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: F60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
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F;11/Modified site: amidated carboxyl end (Met) #status experimental
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Qу
              \mathbf{H}
            2 PN 3
Db
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RESULT 12
E60409
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C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
C; Accession: E60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: E60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
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                                                                  0; Gaps
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Qу
            6 PN 7
              11
            2 PN 3
Dh
RESULT 13
S23308
substance P - rainbow trout
C; Species: Oncorhynchus mykiss (rainbow trout)
C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 18-Aug-2000
C; Accession: S23308
R; Jensen, J.; Conlon, J.M.
Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: S23186; MUID: 92298992; PMID: 1376687
A; Accession: S23308
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Superfamily: unassigned animal peptides
C; Keywords: neuropeptide; amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             2; Conservative
```

```
Qy
            5 KP 6
              1 KP 2
Db
RESULT 14
S23306
substance P - Atlantic cod
C; Species: Gadus morhua (Atlantic cod)
C; Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 18-Aug-2000
C; Accession: S23306
R; Jensen, J.; Conlon, J.M.
Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: S23186; MUID: 92298992; PMID: 1376687
A; Accession: S23306
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Superfamily: unassigned animal peptides
C; Keywords: neuropeptide; amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                               0; Mismatches
  Matches
                                                                               0;
            2; Conservative
                                                    0;
                                                       Indels
                                                                  0; Gaps
            5 KP 6
Qу
              -1.1
            1 KP 2
Db
RESULT 15
C60409
kassinin-like peptide K-II - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 18-Aug-2000
C; Accession: C60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: C60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
A; Note: this peptide was also found in a deamidated form
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
```

F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental

```
F;11/Modified site: amidated carboxyl end (Met) (partial) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                               0;
            6 PN 7
Qу
              Db
            2 PN 3
RESULT 16
S07203
uperolein - frog (Uperoleia marmorata)
C; Species: Uperoleia marmorata
C; Date: 12-Feb-1993 #sequence revision 12-Mar-1993 #text change 18-Aug-2000
C; Accession: S07203
R; Anastasi, A.; Erspamer, V.; Endean, R.
Experientia 31, 394-395, 1975
A; Title: Structure of uperolein, a physalaemin-like endecapeptide occurring in
the skin of Uperoleia rugosa and Uperoleia marmorata.
A; Reference number: S07203; MUID: 75131227; PMID: 1120493
A; Accession: S07203
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid; skin; tachykinin
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                          18.2%;
                                  Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
             2; Conservative
                                                                               0;
                                 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                    0;
            6 PN 7
Qy
              \mathbf{H}
            4 PN 5
Db
RESULT 17
A61033
ranatachykinin A - bullfrog
C; Species: Rana catesbeiana (bullfrog)
C;Date: 31-Dec-1993 #sequence revision 31-Dec-1993 #text change 18-Aug-2000
C; Accession: A61033; JE0426
R; Kangawa, K.; Kozawa, H.; Hino, J.; Minamino, N.; Matsuo, H.
Regul. Pept. 42(Suppl.1), S12, 1992
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
A; Reference number: A61033
A; Accession: A61033
A; Molecule type: protein
A; Residues: 1-11 <KAN>
R; Kozawa, H.; Hino, J.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 177, 588-595, 1991
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
```

```
A; Reference number: JE0426; MUID: 91254337; PMID: 2043143
A; Accession: JE0426
A; Molecule type: protein
A; Residues: 1-11 < KOZ>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; neuropeptide
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            5 KP 6
Qy
              \mathbf{I}
Db
            1 KP 2
RESULT 18
S42449
ant1 protein - phage P7
C; Species: phage P7
C;Date: 07-Sep-1994 #sequence revision 26-May-1995 #text change 08-Oct-1999
C; Accession: S42449
R; Citron, M.; Schuster, H.
Cell 62, 591-598, 1990
A; Title: The c4 repressors of bacteriophages P1 and P7 are antisense RNAs.
A; Reference number: S42448; MUID: 90335968; PMID: 1696181
A; Accession: S42449
A; Status: preliminary; translation not shown
A; Molecule type: DNA
A; Residues: 1-11 <CIT>
A;Cross-references: EMBL:M35139; NID:g215705; PIDN:AAA32437.1; PID:g215707
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
                                                    0; Indels
                                                                               0;
  Matches
             2; Conservative
                                0; Mismatches
                                                                  0; Gaps
            2 KK 3
Qy
              11
            2 KK 3
Db
RESULT 19
J00395
hypothetical protein (nodB 3' region) - Azorhizobium caulinodans
N; Alternate names: hypothetical 1.4K protein
C; Species: Azorhizobium caulinodans
A; Note: host Sesbania rostrata
C;Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 03-Feb-1994
C; Accession: JQ0395
R; Goethals, K.; Gao, M.; Tomekpe, K.; Van Montagu, M.; Holsters, M.
Mol. Gen. Genet. 219, 289-298, 1989
A; Title: Common nodABC genes in Nod locus 1 of Azorhizobium caulinodans:
nucleotide sequence and plant-inducible expression.
A; Reference number: JQ0393; MUID: 90136519; PMID: 2615763
A; Accession: JQ0395
A; Molecule type: DNA
```

```
A; Cross-references: GB:L18897
A; Experimental source: strain ORS571
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                             0;
 Matches
            2; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
            2 KK 3
Qγ
              Db
            6 KK 7
RESULT 20
PO0231
beta-glucosidase (EC 3.2.1.21) - Cellvibrio gilvus (fragment)
C; Species: Cellvibrio gilvus
C;Date: 31-Mar-1992 #sequence revision 31-Mar-1992 #text change 07-May-1999
C; Accession: PQ0231
R; Kashiwagi, Y.; Iijima, C.; Sasaki, T.; Taniguchi, H.
Agric. Biol. Chem. 55, 2553-2559, 1991
A; Title: Characterization of a beta-glucosidase encoded by a gene from
Cellvibrio gilvus.
A; Reference number: PQ0231; MUID: 92144103; PMID: 1368758
A; Accession: PQ0231
A; Molecule type: protein
A; Residues: 1-11 <KAS>
C; Keywords: glycosidase; hydrolase; polysaccharide degradation
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                              0; Mismatches
            2; Conservative
                                                 0; Indels
                                                                 0; Gaps
                                                                              0;
 Matches
            5 KP 6
Qу
              \perp
Db
           10 KP 11
RESULT 21
S66606
quinoline 2-oxidoreductase alpha chain - Comamonas testosteroni (fragment)
C; Species: Comamonas testosteroni
C;Date: 15-Feb-1997 #sequence revision 13-Mar-1997 #text change 17-Mar-1999
C; Accession: S66606
R; Schach, S.; Tshisuaka, B.; Fetzner, S.; Lingens, F.
Eur. J. Biochem. 232, 536-544, 1995
A; Title: Quinoline 2-oxidoreductase and 2-oxo-1, 2-dihydroquinoline 5, 6-
dioxygenase from Comamonas testosteroni 63. The first two enzymes in quinoline
and 3-methylquinoline degradation.
A; Reference number: S66606; MUID: 96035889; PMID: 7556204
A; Accession: S66606
A; Molecule type: protein
A; Residues: 1-11 <SCH>
A; Experimental source: strain 63
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.6e+04;
```

A; Residues: 1-11 <GOE>

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0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
            2; Conservative
            1 AK 2
Qу
              11
            1 AK 2
Db
RESULT 22
A58838
hemolysin - Porphyromonas gingivalis (fragment)
C; Species: Porphyromonas gingivalis
C; Date: 29-Sep-1999 #sequence revision 29-Sep-1999 #text change 29-Sep-1999
C; Accession: A58838
R; Deshpande, R.
submitted to the Protein Sequence Database, April 1998
A; Reference number: A58838
A; Accession: A58838
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <DES>
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                       Indels
  Matches
            2; Conservative
                               0; Mismatches
                                                   0;
                                                                  0; Gaps
                                                                              0;
            6 PN 7
Qу
              11
            4 PN 5
Db
RESULT 23
B43669
hypothetical protein (rhdA 5' region) - Synechococcus sp. (fragment)
C; Species: Synechococcus sp.
C;Date: 03-Mar-1993 #sequence revision 03-Mar-1993 #text change 30-Sep-1993
C; Accession: B43669
R; Laudenbach, D.E.; Ehrhardt, D.; Green, L.; Grossman, A.
J. Bacteriol. 173, 2751-2760, 1991
A; Title: Isolation and characterization of a sulfur-regulated gene encoding a
periplasmically localized protein with sequence similarity to rhodanese.
A; Reference number: A43669; MUID: 91210163; PMID: 1708376
A; Accession: B43669
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <LAU>
A; Cross-references: GB:M65244
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
  Matches
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
            1 AK 2
Qу
              11
            6 AK 7
Db
```

```
PC2372
58K heat shock protein groEL [similarity] - Bacillus cereus (strain ts-4)
(fragment)
C; Species: Bacillus cereus
C;Date: 20-Apr-2000 #sequence revision 20-Apr-2000 #text change 20-Apr-2000
C; Accession: PC2372
R; Matsuno, K.; Miyamoto, T.; Yamaguchi, K.; Sayed, M.A.; Kajiwara, T.; Hatano,
Biosci. Biotechnol. Biochem. 59, 231-235, 1995
A; Title: Identification of DNA-binding proteins changed after induction of
sporulation in Bacillus cereus.
A; Reference number: PC2369; MUID: 95218265; PMID: 7766022
A; Accession: PC2372
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <MAS>
C; Keywords: heat shock; molecular chaperone; stress-induced protein
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0:
  Matches
             2; Conservative
                                0; Mismatches
                                                  0; Indels
Qу
            1 AK 2
              11
            1 AK 2
Db
RESULT 25
B41835
translation elongation factor EF-G homolog - Bacillus subtilis (fragment)
C; Species: Bacillus subtilis
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 05-Dec-1997
C; Accession: B41835
R; Mitchell, C.; Morris, P.W.; Vary, J.C.
J. Bacteriol. 174, 2474-2477, 1992
A; Title: Identification of proteins phosphorylated by ATP during sporulation of
Bacillus subtilis.
A; Reference number: A41835; MUID: 92210489; PMID: 1556067
A; Accession: B41835
A; Molecule type: protein
A; Residues: 1-11 <MIT>
A; Note: this protein is phosphorylated during stationary phase but not during
exponential growth
C; Keywords: phosphoprotein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            4 EK 5
Qу
              H
Db
            4 EK 5
RESULT 26
S33519
probable secreted protein - Acholeplasma laidlawii (fragment)
```

```
C; Species: Acholeplasma laidlawii
C; Date: 06-Jan-1995 #sequence revision 06-Jan-1995 #text change 22-Oct-1999
C; Accession: S33519
R; Boyer, M.J.; Jarhede, T.K.; Tegman, V.; Wieslander, A.
submitted to the EMBL Data Library, June 1993
A; Description: Sequence regions from Acholeplasma laidlawii which restore export
of beta-lactamase in Escherichia coli.
A; Reference number: S33518
A; Accession: S33519
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <BOY>
A; Cross-references: EMBL: Z22875; NID: q311706; PIDN: CAA80495.1; PID: q311708
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
Qy
            2 KK 3
              11
Db
            2 KK 3
RESULT 27
PT0081
protein QA300023 - Arabidopsis thaliana (fragment)
C; Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 07-Feb-1996 #sequence revision 19-Apr-1996 #text change 24-Nov-1999
C; Accession: PT0081
R;Tsugita, A.; Kamo, M.; Kawakami, M.; Ohki, Y.
submitted to JIPID, December 1995
A; Description: Two dimensional electrophoresis of plant proteins and
standardization of the gel patterns.
A; Reference number: PN0173
A; Accession: PT0081
A; Molecule type: protein
A; Residues: 1-11 <TSU>
A; Experimental source: Leaf
C; Keywords: acetylated amino end
F;1/Modified site: acetylated amino end (Ser) #status experimental
                          18.2%; Score 2;
                                             DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
                                                                               0;
  Matches
             2: Conservative
                                 0; Mismatches
                                                    0: Indels
                                                                   0; Gaps
            3 KE 4
Qу
              \perp
            2 KE 3
Db
RESULT 28
PA0028
protein QA300042 - Arabidopsis thaliana (fragment)
C; Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 30-Jun-1992 #sequence_revision 06-Jan-1995 #text_change 06-Jun-1997
C; Accession: PA0028
R; Kamo, M.; Kawakami, T.; Miyatake, N.; Tsugita, A.
```

```
submitted to JIPID, July 1994
A; Description: Separation and characterization of Arabidopsis proteins by two-
dimensional gel electrophoresis.
A; Reference number: PA0001
A; Accession: PA0028
A; Molecule type: protein
A; Residues: 1-11 <KAM>
A; Experimental source: seed
C; Keywords: seed
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.6e+04;
                                                                              0;
  Matches
             2; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            6 PN 7
Qу
              Db
            8 PN 9
RESULT 29
C59151
protein-tyrosine kinase (EC 2.7.1.112) - jack bean (fragment)
C; Species: Canavalia ensiformis (jack bean)
C;Date: 07-Dec-1999 #sequence revision 07-Dec-1999 #text change 04-Feb-2000
C; Accession: C59151
R;Oliveira, A.E.A.; Machado, O.L.T.; Gomes, V.M.; Xavier-Neto, J.; Pereira,
A.C.P.; Vieira, J.G.H.; Fernandes, K.V.S.; Xavier-Filho, J.
Protein Pept. Lett. 6, 15-21, 1999
A; Title: Jack bean seed coat contains a protein with complete sequence homology
to bovine insulin.
A; Reference number: A59151
A; Accession: C59151
A; Molecule type: protein
A; Residues: 1-11 <MAC>
C; Keywords: ATP; phosphotransferase; tyrosine-specific protein kinase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
             2; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
           10 ND 11
Qy
              11
            2 ND 3
Db
RESULT 30
G61497
seed protein ws-23 - winged bean (fragment)
C; Species: Psophocarpus tetragonolobus (winged bean)
C; Date: 07-Oct-1994 #sequence revision 07-Oct-1994 #text change 07-Oct-1994
C; Accession: G61497
R; Hirano, H.
J. Protein Chem. 8, 115-130, 1989
A; Title: Microsequence analysis of winged bean seed proteins electroblotted from
two-dimensional gel.
A; Reference number: A61491; MUID: 89351606; PMID: 2765119
A; Accession: G61497
```

```
A; Molecule type: protein
A; Residues: 1-11 <HIR>
C; Keywords: glycoprotein; seed
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
            2; Conservative
                                0; Mismatches
                                                    0;
                                                                  0; Gaps
                                                                              0;
  Matches
                                                       Indels
Qу
            1 AK 2
              11
            1 AK 2
Db
RESULT 31
S19775
wound-induced protein - tomato (fragment)
C; Species: Lycopersicon esculentum (tomato)
C; Date: 30-Jun-1992 #sequence revision 30-Jun-1992 #text change 09-Sep-1997
C; Accession: S19775
R; Parsons, B.L.
submitted to the EMBL Data Library, May 1991
A; Reference number: $19773
A; Accession: S19775
A; Molecule type: mRNA
A; Residues: 1-11 < PAR>
A; Cross-references: EMBL: X59884; NID: g19323; PID: g19324
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            2 KK 3
Qу
              -11
Db
            5 KK 6
RESULT 32
S71304
amine oxidase (copper-containing) (EC 1.4.3.6) II - Aspergillus niger (fragment)
C; Species: Aspergillus niger
C; Date: 12-Feb-1998 #sequence revision 01-May-1998 #text change 07-May-1999
C; Accession: S71304
R; Frebort, I.; Tamaki, H.; Ishida, H.; Pec, P.; Luhova, L.; Tsuno, H.; Halata,
M.; Asano, Y.; Kato, Y.; Matsushita, K.; Toyama, H.; Kumagai, H.; Adachi, O.
Eur. J. Biochem. 237, 255-265, 1996
A; Title: Two distinct quinoprotein amine oxidases are induced by n-butylamine in
the mycelia of Aspergillus niger AKU 3302: purification, characterization, cDNA
cloning and sequencing.
A; Reference number: S71303; MUID: 96203933; PMID: 8620882
A; Accession: S71304
A; Molecule type: protein
A; Residues: 1-11 <FRE>
C; Keywords: copper binding; monomer; oxidoreductase; quinoprotein; topaquinone
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
```

A; Status: preliminary

```
2; Conservative
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
                                 0: Mismatches
  Matches
           10 ND 11
Qy
              11
            1 ND 2
Db
RESULT 33
A26120
6-phosphofructokinase (EC 2.7.1.11) - pig roundworm (fragment)
N; Alternate names: phosphofructokinase; phosphohexokinase
C; Species: Ascaris suum (pig roundworm)
C;Date: 15-Dec-1988 #sequence revision 15-Dec-1988 #text change 28-Apr-1993
C; Accession: A26120
R; Kulkarni, G.; Rao, G.S.J.; Srinivasan, N.G.; Hofer, H.W.; Yuan, P.M.; Harris,
B.G.
J. Biol. Chem. 262, 32-34, 1987
A; Title: Ascaris suum phosphofructokinase. Phosphorylation by protein kinase and
sequence of the phosphopeptide.
A; Reference number: A26120; MUID: 87083467; PMID: 3025208
A; Accession: A26120
A; Molecule type: protein
A; Residues: 1-11 < KUL>
C; Keywords: glycolysis; phosphotransferase
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
            1 AK 2
Qу
              \Pi
Db
            1 AK 2
RESULT 34
569349
neuropeptide FFamide - great pond snail
C; Species: Lymnaea stagnalis (great pond snail)
C;Date: 24-Jul-1998 #sequence revision 24-Jul-1998 #text change 17-Mar-1999
C; Accession: S69349
R;Li, K.W.; El Filali, Z.; van Golen, F.A.; Geraerts, W.P.M.
Eur. J. Biochem. 229, 70-72, 1995
A; Title: Identification of a novel amide peptide, GLTPNMNSLFF-NH(2), involved in
the control of vas deferens motility in Lymnaea stagnalis.
A; Reference number: S69349; MUID: 95262689; PMID: 7744051
A; Accession: S69349
A; Molecule type: protein
A; Residues: 1-11 <LIK>
A; Experimental source: penis complex
C; Function:
A; Description: enhances the contraction frequency and contraction amplitude of
the vas deferens
A; Note: control of male reproductive behavior
C; Keywords: amidated carboxyl end; neuropeptide
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
```

```
Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
             2; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                               0;
 Matches
            6 PN 7
Qу
              \mathbf{I}
            4 PN 5
Db
RESULT 35
I41978
calliFMRFamide 9 - bluebottle fly (Calliphora vomitoria)
C; Species: Calliphora vomitoria
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text change 17-Mar-1999
C:Accession: I41978
R; Duve, H.; Johnsen, A.H.; Sewell, J.C.; Scott, A.G.; Orchard, I.; Rehfeld,
J.F.; Thorpe, A.
Proc. Natl. Acad. Sci. U.S.A. 89, 2326-2330, 1992
A; Title: Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH-2
neuropeptides (designated calliFMRFamides) from the blowfly Calliphora
vomitoria.
A; Reference number: A41978; MUID: 92196111; PMID: 1549595
A; Accession: I41978
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 < DUV>
C; Keywords: amidated carboxyl end; neuropeptide
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
           10 ND 11
Qу
            6 ND 7
RESULT 36
S33300
probable substance P - smaller spotted catshark
C; Species: Scyliorhinus canicula (smaller spotted catshark, smaller spotted
dogfish)
C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 24-Mar-1999
C; Accession: S33300
R; Waugh, D.; Wang, Y.; Hazon, N.; Balment, R.J.; Conlon, J.M.
Eur. J. Biochem. 214, 469-474, 1993
A; Title: Primary structures and biological activities of substance-P-related
peptides from the brain of the dogfish, Scyliorhinus canicula.
A; Reference number: S33300; MUID: 93292508; PMID: 7685693
A; Accession: S33300
A; Molecule type: protein
A; Residues: 1-11 <WAU>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
```

```
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
  Matches
            2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
Qу
            5 KP 6
              11
            1 KP 2
Db
RESULT 37
A33571
follistatin - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C; Date: 09-Mar-1990 #sequence revision 09-Mar-1990 #text change 30-Sep-1993
C; Accession: A33571
R; Gospodarowicz, D.; Lau, K.
Biochem. Biophys. Res. Commun. 165, 292-298, 1989
A; Title: Pituitary follicular cells secrete both vascular endothelial growth
factor and follistatin.
A; Reference number: A33571; MUID: 90073725; PMID: 2590228
A; Accession: A33571
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <GOS>
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
           2; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
            1 AK 2
QУ
              -1-1
Db
            8 AK 9
RESULT 38
S23926
major glycoprotein PAS-6 - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C; Date: 19-Mar-1997 #sequence revision 01-Feb-1999 #text change 01-Feb-1999
C; Accession: S23926
R; Kim, D.H.; Kanno, C.; Mizokami, Y.
Biochim. Biophys. Acta 1122, 203-211, 1992
A; Title: Purification and characterization of major glycoproteins, PAS-6 and
PAS-7, from bovine milk fat globule membrane.
A; Reference number: S23926; MUID: 92353107; PMID: 1643094
A; Accession: S23926
A; Molecule type: protein
A; Residues: 1-11 <KIM>
C; Keywords: glycoprotein; milk; blocked amino end
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.6e+04;
```

```
0; Indels
                                                                   0; Gaps
                                                                               0;
  Matches
             2; Conservative
                                 0; Mismatches
            7 NK 8
Qу
              11
            4 NK 5
Db
RESULT 39
A14454
6-phosphofructokinase (EC 2.7.1.11) - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 05-Jun-1987 #sequence revision 05-Jun-1987 #text change 28-Apr-1993
C; Accession: A14454
R; Fordyce, A.M.; Midwinter, G.G.; Moore, C.H.
Biochem. Soc. Trans. 7, 721-723, 1979
A; Title: The N-terminal amino acid sequence of sheep heart phosphofructokinase.
A; Reference number: A14454; MUID: 80004524; PMID: 157899
A:Accession: A14454
A; Molecule type: protein
A; Residues: 1-11 <FOR>
C; Keywords: glycolysis; phosphotransferase
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             2;
                Conservative
            1 AK 2
Qу
              \mathbf{I}
            8 AK 9
Db
RESULT 40
PH1376
T antigen variant K-3 - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 16-Jul-1999 #sequence revision 16-Jul-1999 #text change 11-May-2000
C; Accession: PH1376
R; Lill, N.L.; Judith Tevethia, M.; Hendrickson, W.G.; Tevethia, S.S.
J. Exp. Med. 176, 449-457, 1992
A; Title: Cytotoxic T lymphocytes (CTL) against a transforming gene product
select for transformed cells with point mutations within sequences encoding CTL
recognition epitopes.
A; Reference number: PH1373; MUID: 92364547; PMID: 1380062
A: Accession: PH1376
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <LIL>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.6e+04;
                                                                               0;
  Matches
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                   0; Gaps
            7 NK 8
Qу
              | \cdot |
            5 NK 6
Db
```

```
RESULT 41
S65377
cytochrome-c oxidase (EC 1.9.3.1) chain VIa-H, cardiac - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text change 16-Jul-1999
C; Accession: S65377
R; Schaegger, H.; Noack, H.; Halangk, W.; Brandt, U.; von Jagow, G.
Eur. J. Biochem. 230, 235-241, 1995
A; Title: Cytochrome-c oxidase in developing rat heart. Enzymic properties and
amino-terminal sequences suggest identity of the fetal heart and the adult liver
isoform.
A; Reference number: S65372; MUID: 95324529; PMID: 7601105
A:Accession: S65377
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Keywords: cardiac muscle; heart; oxidoreductase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
             2; Conservative
                                0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
            1 AK 2
Qу
              11
Db
            3 AK 4
RESULT 42
PH0939
T-cell receptor beta chain V-D-J region (clone 10) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text_change 30-May-1997
C; Accession: PH0939
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0939
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: complete Freund's adjuvant-immunized lymph node
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                              0;
             2: Conservative
                                0; Mismatches 0; Indels
                                                                  0; Gaps
  Matches
            5 KP 6
QУ
              \Box
Db
            5 KP 6
RESULT 43
H84082
hypothetical protein BH3464 [imported] - Bacillus halodurans (strain C-125)
C; Species: Bacillus halodurans
```

```
C;Date: 01-Dec-2000 #sequence revision 01-Dec-2000 #text change 15-Jun-2001
C; Accession: H84082
R; Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fuji,
F.; Hirama, C.; Nakamura, Y.; Ogasawara, N.; Kuhara, S.; Horikoshi, K.
Nucleic Acids Res. 28, 4317-4331, 2000
A; Title: Complete genome sequence of the alkaliphilic bacterium Bacillus
halodurans and genomic sequence comparison with Bacillus subtilis.
A; Reference number: A83650; MUID: 20512582; PMID: 11058132
A; Accession: H84082
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <STO>
A; Cross-references: GB: AP001518; GB: BA000004; NID: g10175792; PIDN: BAB07183.1;
GSPDB: GN00137
A; Experimental source: strain C-125
C; Genetics:
A; Gene: BH3464
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                               0;
  Matches
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                   0; Gaps
Qу
            3 KE 4
              11
Db
            4 KE 5
RESULT 44
S19015
hypothetical protein 11 ruvC-yebC intergenic region - Escherichia coli
C; Species: Escherichia coli
C; Date: 15-Oct-1999 #sequence revision 15-Oct-1999 #text change 15-Oct-1999
C; Accession: S19015
R; Sharples, G.J.; Lloyd, R.G.
J. Bacteriol. 173, 7711-7715, 1991
A; Title: Resolution of Holliday junctions in Escherichia coli: identification of
the ruvC gene product as a 19-kilodalton protein.
A; Reference number: S19013; MUID: 92041688; PMID: 1657895
A; Accession: S19015
A; Molecule type: DNA
A; Residues: 1-11 <SHA>
A; Cross-references: EMBL: X59551; NID: q42172; PIDN: CAA42127.1; PID: q42174
C; Comment: This is the hypothetical translation of a sequence that was not
reported as a coding sequence in the complete genome.
                           18.2%; Score 2; DB 4; Length 11;
  Query Match
                           100.0%; Pred. No. 2.6e+04;
  Best Local Similarity
                                                                   0; Gaps
                                                                               0:
             2; Conservative
                                  0; Mismatches
                                                    0; Indels
            1 AK 2
Qy
              П
            4 AK 5
Db
RESULT 45
XAVIBH
```

bradykinin-potentiating peptide - halys viper

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N; Alternate names: BPP
C; Species: Agkistrodon halys (halys viper)
C;Date: 30-Sep-1988 #sequence revision 30-Sep-1988 #text change 05-Aug-1994
C; Accession: JC0002
R; Chi, C.W.; Wang, S.Z.; Xu, L.G.; Wang, M.Y.; Lo, S.S.; Huang, W.D.
Peptides 6, 339-342, 1985
A; Title: Structure-function studies on the bradykinin potentiating peptide from
Chinese snake venom (Agkistrodon halys Pallas).
A; Reference number: JC0002; MUID:86177022; PMID:3008123
A:Accession: JC0002
A; Molecule type: protein
A; Residues: 1-11 <CHI>
C; Comment: Because this peptide both inhibits the activity of the angiotensin-
converting enzyme and enhances the action of bradykinin, it is an
antihypertensive agent.
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; antihypertensive;
bradykinin; pyroglutamic acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.8e+05;
  Best Local Similarity
            1; Conservative
 Matches
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
Qу
            6 P 6
            4 P 4
Dh
RESULT 46
XASNBA
bradykinin-potentiating peptide B - mamushi
C; Species: Agkistrodon blomhoffi (mamushi)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 08-Dec-1995
C; Accession: A01254
R; Kato, H.; Suzuki, T.
Proc. Jpn. Acad. 46, 176-181, 1970
A; Reference number: A01254
A; Accession: A01254
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Note: the sequence of the natural peptide was confirmed by the synthesis and
analysis of a peptide having the identical structure and biological properties
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; bradykinin; pyroglutamic
acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
                                0; Mismatches
  Matches
             1: Conservative
                                                   0;
                                                      Indels
                                                                  0; Gaps
                                                                              0;
            2 K 2
Qу
            8 K 8
Db
```

```
RESULT 47
ECLQ2M
tachykinin II - migratory locust
C; Species: Locusta migratoria (migratory locust)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 08-Dec-1995
C; Accession: S08266
R; Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; de Loof, A.
FEBS Lett. 261, 397-401, 1990
A; Title: Locustatachykinin I and II, two novel insect neuropeptides with
homology to peptides of the vertebrate tachykinin family.
A; Reference number: S08265; MUID: 90184489; PMID: 2311766
A; Accession: S08266
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Superfamily: tachykinin
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Arg) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
                                0; Mismatches
  Matches
             1; Conservative
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            1 A 1
Qy
              - 1
Db
            1 A 1
RESULT 48
EOOCC
eledoisin - curled octopus
C; Species: Eledone cirrosa, Ozaena cirrosa (curled octopus)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 20-Mar-1998
C; Accession: B01561; A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: B01561
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F; 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
             1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qy
            6 P 6
            2 P 2
Db
```

```
eledoisin - musky octopus
C; Species: Eledone moschata, Ozaena moschata (musky octopus)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 20-Mar-1998
C; Accession: A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: A01561
A; Molecule type: protein
A; Residues: 1-11 < ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F; 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 1.8e+05;
  Best Local Similarity
          1; Conservative
                                 0; Mismatches
                                                  0;
                                                       Indels
                                                                              0;
Qу
            6 P 6
            2 P 2
Db
RESULT 50
GMROT.
leucosulfakinin - Madeira cockroach
N; Alternate names: LSK
C; Species: Leucophaea maderae (Madeira cockroach)
C; Date: 17-Mar-1987 #sequence revision 17-Mar-1987 #text change 13-Sep-1996
C; Accession: A01622
R; Nachman, R.J.; Holman, G.M.; Haddon, W.F.; Ling, N.
Science 234, 71-73, 1986
A; Title: Leucosulfakinin, a sulfated insect neuropeptide with homology to
gastrin and cholecystokinin.
A; Reference number: A01622; MUID: 86315858; PMID: 3749893
A; Accession: A01622
A; Molecule type: protein
A; Residues: 1-11 <NAC>
C; Superfamily: gastrin
C; Keywords: amidated carboxyl end; hormone; sulfoprotein
F;6/Binding site: sulfate (Tyr) (covalent) #status experimental
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
  Matches
             1; Conservative
                                 0; Mismatches
                                                        Indels
                                                                  0; Gaps
                                                                              0;
Qу
            4 E 4
            1 E 1
Db
```

FOOC

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RESULT 51
LFTWWE
probable trpEG leader peptide - Thermus aquaticus
C; Species: Thermus aquaticus
C; Date: 30-Jun-1991 #sequence revision 30-Jun-1991 #text change 16-Jul-1999
C; Accession: S03315
R; Sato, S.; Nakada, Y.; Kanaya, S.; Tanaka, T.
Biochim. Biophys. Acta 950, 303-312, 1988
A; Title: Molecular cloning and nucleotide sequence of Thermus thermophilus HB8
trpE and trpG.
A; Reference number: S03315; MUID: 89000781; PMID: 2844259
A; Accession: S03315
A; Molecule type: DNA
A; Residues: 1-11 <SAT>
A; Cross-references: EMBL: X07744; NID: q48261; PIDN: CAA30565.1; PID: q48262
A; Note: the source is designated as Thermus thermophilus HB8
C; Genetics:
A; Gene: trpL
C; Superfamily: probable trpEG leader peptide
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
             1; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            1 A 1
Qу
Db
            2 A 2
RESULT 52
S66196
alcohol dehydrogenase (EC 1.1.1.1) class III high affinity form - cod (Gadus
sp.) (fragment)
C; Species: Gadus sp. (cod)
C;Date: 14-Feb-1997 #sequence revision 13-Mar-1997 #text change 12-Jun-1998
C; Accession: S66196
R; Hjelmqvist, L.; Hackett, M.; Shafqat, J.; Danielsson, O.; Iida, J.;
Hendrickson, R.C.; Michel, H.; Shabanowitz, J.; Hunt, D.F.; Joernvall, H.
FEBS Lett. 367, 237-240, 1995
A; Title: Multiplicity of N-terminal structures of medium-chain alcohol
dehydrogenases. Mass-spectrometric analysis of plant, lower vertebrate and
higher vertebrate class I, II, and III forms of the enzyme.
A; Reference number: S66191; MUID: 95331382; PMID: 7607314
A: Accession: S66196
A; Molecule type: protein
A; Residues: 1-11 <HJE>
C; Superfamily: alcohol dehydrogenase; long-chain alcohol dehydrogenase homology
C; Keywords: alcohol metabolism; NAD; oxidoreductase
  Query Match
                           9.1%;
                                  Score 1; DB 2; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 A 1
Qу
            6 A 6
Db
```

```
RESULT 53
G42762
proteasome endopeptidase complex (EC 3.4.25.1) subunit 13 - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C; Date: 04-Mar-1993 #sequence revision 18-Nov-1994 #text change 17-Feb-2003
C; Accession: G42762
R; Dick, L.R.; Moomaw, C.R.; Pramanik, B.C.; DeMartino, G.N.; Slaughter, C.A.
Biochemistry 31, 7347-7355, 1992
A; Title: Identification and localization of a cysteinyl residue critical for the
trypsin-like catalytic activity of the proteasome.
A; Reference number: A42762; MUID: 92378961; PMID: 1510924
A; Accession: G42762
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <DIC>
A; Note: sequence extracted from NCBI backbone (NCBIP:112176)
C; Superfamily: multicatalytic endopeptidase complex chain C9
C; Keywords: hydrolase
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
 Matches
             1; Conservative
                                0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            2 K 2
Qу
            8 K 8
Db
RESULT 54
S68392
H+-transporting two-sector ATPase (EC 3.6.3.14) chain I - Chlamydomonas
reinhardtii chloroplast (fragment)
N; Alternate names: ATP synthase chain I
C; Species: chloroplast Chlamydomonas reinhardtii
C;Date: 04-Dec-1997 #sequence revision 12-Dec-1997 #text change 03-Jun-2002
C; Accession: S68392
R; Fiedler, H.R.; Schmid, R.; Leu, S.; Shavit, N.; Strotmann, H.
FEBS Lett. 377, 163-166, 1995
A; Title: Isolation of CF(0)CF(1) from Chlamydomonas reinhardtii cw15 and the N-
terminal amino acid sequences of the CF(0)CF(1) subunits.
A; Reference number: S68388; MUID: 96128220; PMID: 8543042
A; Accession: S68392
A; Molecule type: protein
A; Residues: 1-11 <FIE>
A; Experimental source: strain CW15
C: Genetics:
A; Genome: chloroplast
C; Superfamily: H+-transporting ATP synthase protein 6
C; Keywords: ATP biosynthesis; chloroplast; hydrolase; membrane-associated
complex; thylakoid
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.8e+05;
  Best Local Similarity
             1; Conservative
                                0; Mismatches
                                                    0;
                                                                  0; Gaps
                                                                              0;
                                                       Indels
```

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RESULT 55
A33917
dihydroorotase (EC 3.5.2.3) - Chinese hamster (fragment)
C; Species: Cricetulus griseus (Chinese hamster)
C;Date: 09-Mar-1990 #sequence revision 09-Mar-1990 #text change 07-Nov-1997
C; Accession: A33917
R; Simmer, J.P.; Kelly, R.E.; Scully, J.L.; Grayson, D.R.; Rinker Jr., A.G.;
Bergh, S.T.; Evans, D.R.
Proc. Natl. Acad. Sci. U.S.A. 86, 4382-4386, 1989
A; Title: Mammalian aspartate transcarbamylase (ATCase): sequence of the ATCase
domain and interdomain linker in the CAD multifunctional polypeptide and
properties of the isolated domain.
A; Reference number: A33917; MUID: 89282776; PMID: 2543974
A; Accession: A33917
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <SIM>
A; Cross-references: GB:M23652
C; Superfamily: rudimentary enzyme; aspartate/ornithine carbamoyltransferase
homology; Bacillus dihydroorotase homology; biotin carboxylase homology;
carbamoyl-phosphate synthase (ammonia) homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) large chain homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) small chain homology; trpG homology
C; Keywords: hydrolase
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+05;
  Matches
             1; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            4 E 4
Qy
            2 E 2
Db
RESULT 56
B49164
chromogranin-B - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 19-Dec-1993 #sequence revision 18-Nov-1994 #text change 31-Oct-1997
C; Accession: B49164
R; Nielsen, E.; Welinder, B.S.; Madsen, O.D.
Endocrinology 129, 3147-3156, 1991
A; Title: Chromogranin-B, a putative precursor of eight novel rat glucagonoma
peptides through processing at mono-, di-, or tribasic residues.
A; Reference number: A49164; MUID: 92063871; PMID: 1954895
A; Accession: B49164
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <NIE>
A; Note: sequence extracted from NCBI backbone (NCBIP: 66370)
C; Superfamily: chromogranin B precursor
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
```

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Best Local Similarity 100.0%; Pred. No. 1.8e+05;
            1; Conservative 0; Mismatches
                                                 0; Indels
  Matches
                                                                  0; Gaps
                                                                              0;
            6 P 6
Qу
            1 P 1
Db
RESULT 57
JN0023
substance P - chicken
C; Species: Gallus gallus (chicken)
C; Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 11-Jul-1997
C; Accession: JN0023
R; Conlon, J.M.; Katsoulis, S.; Schmidt, W.E.; Thim, L.
Regul. Pept. 20, 171-180, 1988
A; Title: [Arg3] substance P and neurokinin A from chicken small intestine.
A; Reference number: JN0023; MUID: 88204263; PMID: 2452461
A; Accession: JN0023
A; Molecule type: protein
A; Residues: 1-11 <CON>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
                                0; Mismatches
                                                                              0;
  Matches
             1; Conservative
                                                    0; Indels
                                                                  0; Gaps
            6 P 6
Qy
Db
            2 P 2
RESULT 58
S32575
ribosomal protein S2, plastid - squawroot plastid (fragment)
C; Species: plastid Conopholis americana (squawroot)
C; Date: 19-Mar-1997 #sequence revision 25-Apr-1997 #text change 13-Aug-1999
C; Accession: S32575
R; Taylor, G.W.; Wolfe, K.H.; Morden, C.W.; dePamphilis, C.W.; Palmer, J.D.
Curr. Genet. 20, 515-518, 1991
A; Title: Lack of a functional plastid tRNA(Cys) gene is associated with loss of
photosynthesis in a lineage of parasitic plants.
A; Reference number: S32575; MUID: 92145776; PMID: 1723664
A; Accession: S32575
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <TAY>
A; Cross-references: EMBL: X64567; NID: g11275; PIDN: CAA45868.1; PID: g11276
C; Genetics:
A; Gene: rps2
A; Genome: plastid
C; Superfamily: Escherichia coli ribosomal protein S2
C; Keywords: plastid; protein biosynthesis; ribosome
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
```

```
Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
  Matches
            1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            4 E 4
Qу
              1
           11 E 11
Db
RESULT 59
A40693
transgelin - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 03-May-1994 #sequence revision 03-May-1994 #text change 31-Oct-1997
C; Accession: A40693
R; Shapland, C.; Hsuan, J.J.; Totty, N.F.; Lawson, D.
J. Cell Biol. 121, 1065-1073, 1993
A; Title: Purification and properties of transgelin: a transformation and shape
change sensitive actin-gelling protein.
A; Reference number: A40693; MUID: 93273790; PMID: 8501116
A; Accession: A40693
A; Molecule type: protein
A; Residues: 1-11 <SHA>
A; Experimental source: aorta
C; Comment: This protein gels actin and is down regulated by transformation or
loss of cell adherence in culture.
C; Superfamily: smooth muscle protein SM22; calponin repeat homology; smooth
muscle protein SM22 homology
C; Keywords: actin binding; cytoskeleton
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 1.8e+05;
  Best Local Similarity
                                                                              0;
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
            1; Conservative
            2 K 2
Qу
            1 K 1
Db
RESULT 60
S00616
parasporal crystal protein, wax moth-specific - Bacillus thuringiensis (strain
galleriae 11-67) (fragment)
N; Alternate names: delta-endotoxin; parasporal crystal protein positive chain
C; Species: Bacillus thuringiensis
C;Date: 31-Dec-1988 #sequence revision 31-Dec-1988 #text change 13-Sep-1996
C; Accession: S00616
R; Chestukhina, G.G.; Kostina, L.I.; Zalunin, I.A.; Khodova, O.M.; Stepanov, V.M.
FEBS Lett. 232, 249-251, 1988
A; Title: Bacillus thuringiensis ssp. galleriae simultaneously produces two
delta-endotoxins differing strongly in primary structure and entomocidal
activity.
A; Reference number: S00615
A; Accession: S00616
A; Molecule type: protein
A; Residues: 1-11 < CHE>
C; Comment: This toxin is effective against the larvae of Galleria melonella
(greater wax moth) but not those of Lymantria dispar (gypsy moth).
```

```
C; Keywords: delta-endotoxin
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
                                                                               0;
                                                                  0; Gaps
             1; Conservative
                               0; Mismatches
                                                    0;
                                                       Indels
  Matches
            6 P 6
Qу
            2 P 2
Db
RESULT 61
S09074
cytochrome P450-4b - rat (fragment)
N; Alternate names: cytochrome P450K-5
N; Contains: oxidoreductase (EC 1.-.-.)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 23-Apr-1993 #sequence_revision 23-Apr-1993 #text_change 05-Mar-1999
C; Accession: S09074
R; Imaoka, S.; Terano, Y.; Funae, Y.
Arch. Biochem. Biophys. 278, 168-178, 1990
A; Title: Changes in the amount of cytochrome P450s in rat hepatic microsomes
with starvation.
A; Reference number: S09072; MUID: 90210577; PMID: 2321956
A; Accession: S09074
A; Molecule type: protein
A; Residues: 1-11 < IMA>
C; Superfamily: unassigned cytochrome P450; cytochrome P450 homology
C; Keywords: heme; microsome; monooxygenase; oxidoreductase; transmembrane
protein
                            9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.8e+05;
  Best Local Similarity
                                                                               0;
                                                       Indels
                                                                  0; Gaps
            1; Conservative
                                 0; Mismatches
                                                   0;
            6 P 6
Qy
            4 P 4
Db
RESULT 62
A57458
gene Gax protein - mouse (fragment)
C; Species: Mus sp. (mouse)
C;Date: 02-Jul-1996 #sequence revision 02-Jul-1996 #text change 15-Oct-1999
C; Accession: A57458
R; Andres, V.; Fisher, S.; Wearsch, P.; Walsh, K.
Mol. Cell. Biol. 15, 4272-4281, 1995
A; Title: Regulation of Gax homeobox gene transcription by a combination of
positive factors including myocyte-specific enhancer factor 2.
A; Reference number: A57458; MUID: 95349593; PMID: 7623821
A; Accession: A57458
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <RES>
A; Cross-references: GB: S79168; NID: g1050991
```

C; Superfamily: parasporal crystal protein

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A; Gene: Gax
C; Superfamily: unassigned homeobox proteins; homeobox homology
C; Keywords: DNA binding; homeobox; nucleus; transcription regulation
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.8e+05;
  Best Local Similarity
                                                                              0;
                                 0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
                Conservative
            4 E 4
QУ
            2 E 2
RESULT 63
YHRT
morphogenetic neuropeptide - rat
C; Species: Rattus norvegicus (Norway rat)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: A01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator by the authors, because it induced head-specific growth
and differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; hypothalamus; intestine; neuropeptide;
pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                                  Score 1; DB 2; Length 11;
                           9.1%;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
                                                    0; Indels
                                                                               0;
             1; Conservative
                                                                  0; Gaps
  Matches
                                0; Mismatches
            6 P 6
Qу
            2 P 2
Db
RESULT 64
YHHU
morphogenetic neuropeptide - human
C; Species: Homo sapiens (man)
```

C; Genetics:

```
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: B01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.8e+05;
                                                                              0;
  Matches
            1; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            6 P 6
Qу
Db
            2 P 2
RESULT 65
YHBO
morphogenetic neuropeptide - bovine
C; Species: Bos primigenius taurus (cattle)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: C01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A:Accession: C01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
```

```
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.8e+05;
  Best Local Similarity
             1: Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            6 P 6
Qу
              1
            2 P 2
Db
RESULT 66
YHXAE
morphogenetic neuropeptide - sea anemone (Anthopleura elegantissima)
N; Alternate names: head activator
C; Species: Anthopleura elegantissima
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: A93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
                                                                  0; Gaps
                                                                              0;
                                0; Mismatches
                                                   0; Indels
            1; Conservative
  Matches
            6 P 6
Qу
            2 P 2
Db
```

C; Comment: This peptide was first isolated from nerve cells of hydra and was

```
RESULT 67
YHJFHY
morphogenetic neuropeptide - Hydra attenuata
N; Alternate names: head activator
C; Species: Hydra attenuata
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: B93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID:82050803; PMID:7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
  Matches
            1; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            6 P 6
Qy
            2 P 2
Db
RESULT 68
A61365
phyllokinin - Rohde's leaf frog
N; Alternate names: bradykinyl-isoleucyl-tyrosine O-sulfate
C; Species: Phyllomedusa rohdei (Rohde's leaf frog)
C;Date: 09-Sep-1994 #sequence revision 09-Sep-1994 #text change 18-Aug-2000
C; Accession: A61365
R; Anastasi, A.; Bertaccini, G.; Erspamer, V.
Br. J. Pharmacol. 27, 479-485, 1966
A; Title: Pharmacological data on phyllokinin (bradykinyl-isoleucyl-tyrosine O-
sulphate) and bradykinyl-isoleucyl-tyrosine.
A; Reference number: A61365; MUID: 67179312; PMID: 5970899
A; Accession: A61365
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: unassigned animal peptides
```

```
C; Keywords: sulfoprotein
F;11/Binding site: sulfate (Tyr) (covalent) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
                                                                              0;
                              0; Mismatches
                                                   0;
                                                                  0; Gaps
  Matches
            1; Conservative
                                                       Indels
            6 P 6
Qy
            2 P 2
Dh
RESULT 69
B26744
megascoliakinin - garden dagger wasp
N; Alternate names: 6-Thr-bradykinin-Lys-Ala
C; Species: Megascolia flavifrons (garden dagger wasp)
C;Date: 08-Mar-1989 #sequence revision 08-Mar-1989 #text change 18-Aug-2000
C; Accession: B26744; A28609
R; Yasuhara, T.; Mantel, P.; Nakajima, T.; Piek, T.
Toxicon 25, 527-535, 1987
A; Title: Two kinins isolated from an extract of the venom reservoirs of the
solitary wasp Megascolia flavifrons.
A; Reference number: A94322; MUID: 87293024; PMID: 3617088
A; Accession: B26744
A; Molecule type: protein
A; Residues: 1-11 <YAS>
R; Nakajima, T.; Piek, T.; Yashuara, T.; Mantel, P.
Toxicon 26, 34, 1988
A; Title: Two kinins isolated from the venom of Megascolia flavifrons.
A; Reference number: A28609
A; Accession: A28609
A; Molecule type: protein
A; Residues: 1-11 < NAK>
C; Superfamily: unassigned animal peptides
C; Keywords: bradykinin; presynaptic neurotoxin; venom
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 1.8e+05;
  Best Local Similarity
            1; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
Qу
            6 P 6
Db
            2 P 2
RESULT 70
B60409
kassinin-like peptide K-I - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text_change 18-Aug-2000
C; Accession: B60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
```

```
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: B60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
A; Note: this peptide was also found in a deamidated form
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) (partial) #status experimental
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 1.8e+05;
  Best Local Similarity
            1; Conservative 0; Mismatches
  Matches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            6 P 6
Qу
            2 P 2
Ŋh
RESULT 71
S07207
Crinia-angiotensin, skin - frog (Crinia georgiana)
C; Species: Crinia georgiana
C;Date: 12-Feb-1993 #sequence revision 12-Feb-1993 #text change 18-Aug-2000
C; Accession: S07207
R; Erspamer, V.; Melchiorri, P.; Nakajima, T.; Yasuhara, T.; Endean, R.
Experientia 35, 1132-1133, 1979
A; Title: Amino acid composition and sequence of crinia-angiotensin, an
angiotensin II-like endecapeptide from the skin of the Australian frog Crinia
qeorgiana.
A; Reference number: S07207; MUID: 80024575; PMID: 488254
A: Accession: S07207
A; Molecule type: protein
A; Residues: 1-11 <ERS>
C; Superfamily: unassigned animal peptides
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
  Matches
          1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            1 A 1
Db
            1 A 1
RESULT 72
B58501
24K kidney and bladder stone protein 2 - unidentified bacterium (fragment)
C; Species: unidentified bacterium
C;Date: 07-Feb-1997 #sequence revision 07-Feb-1997 #text change 10-Jul-1998
C; Accession: B58501
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A; Description: The proteins of kidney and gallbladder stones.
A; Reference number: A58501
A; Accession: B58501
A; Status: preliminary
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A; Residues: 1-11 <BIN>
A; Experimental source: human kidney and bladder stones
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
            1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            4 E 4
Qу
Db
            1 E 1
RESULT 73
D58502
27K bile and gallbladder stone protein - unidentified bacterium (fragment)
C; Species: unidentified bacterium
C;Date: 07-Feb-1997 #sequence revision 07-Feb-1997 #text change 10-Jul-1998
C; Accession: D58502
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A; Description: The proteins of kidney and gallbladder stones.
A; Reference number: A58501
A; Accession: D58502
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <BIN>
A; Experimental source: human bile and gallbladder stones
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.8e+05;
  Matches
             1; Conservative 0; Mismatches
                                                   0; Indels
                                                                     Gaps
                                                                              0;
           11 D 11
Qу
            6 D 6
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C; Species: unidentified bacterium
C; Date: 07-Feb-1997 #sequence revision 07-Feb-1997 #text change 10-Jul-1998
C; Accession: A58502
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A; Description: The proteins of kidney and gallbladder stones.
A; Reference number: A58501
A; Accession: A58502
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <BIN>
A; Experimental source: human kidney stone containing Ca ox. mono and dihyd, 1%
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A; Molecule type: protein

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C; Species: unidentified bacterium
C;Date: 07-Feb-1997 #sequence revision 07-Feb-1997 #text change 10-Jul-1998
C; Accession: C58501
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A; Description: The proteins of kidney and gallbladder stones.
A; Reference number: A58501
A; Accession: C58501
A; Status: preliminary
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A; Residues: 1-11 <BIN>
A; Experimental source: human bile with stones
A; Note: tentitive identification of 1-Gly
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Search completed: April 8, 2004, 15:49:27
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Job time : 8.61538 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:47:33; Search time 30.3077 Seconds

(without alignments)

95.432 Million cell updates/sec

US-09-787-443A-17 Title:

Perfect score: 11

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Searched: 1073127 segs, 262937947 residues

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Post-processing: Listing first 100 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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> No. Score Match Length DB ID

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	4	36.4	11	10		Sequence 354, App
4	3 3	27.3	11	9	US-09-739-936-5	Sequence 5, Appli
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6	3	27.3	11	9	US-09-833-079-2	Sequence 2, Appli
7	3	27.3	11	9	US-09-833-079-17	Sequence 17, Appl
8	3	27.3	11	9	US-09-791-378-60	Sequence 60, Appl
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ALIGNMENTS

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US-09-879-936-10

- ; Sequence 10, Application US/09879936
- ; Patent No. US20020045564A1
- ; GENERAL INFORMATION:
- ; APPLICANT: Van Eyk, Jennifer E. ; APPLICANT: Mak, Alan S.
- ; APPLICANT: Cote, Graham P.

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TITLE OF INVENTION: Methods of Modulating Muscle Contraction
  FILE REFERENCE: 1997-021-03US
   CURRENT APPLICATION NUMBER: US/09/879,936
   CURRENT FILING DATE: 2001-06-14
   PRIOR APPLICATION NUMBER: 60/050,478
   PRIOR FILING DATE: 1997-06-23
   PRIOR APPLICATION NUMBER: 60/089,505
  PRIOR FILING DATE: 1998-06-16
  NUMBER OF SEQ ID NOS: 26
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   LENGTH: 11
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   ORGANISM: Unknown
   FEATURE:
   NAME/KEY: PEPTIDE
   LOCATION: (1)..(11)
    OTHER INFORMATION: Residues 423 to 433 of chicken gizzard caldesmon
    NAME/KEY: PEPTIDE
    LOCATION: (11)
    OTHER INFORMATION: Targeted Ser phospho-amino acid
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US-09-876-904A-237
; Sequence 237, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 237
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US-09-876-904A-237
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; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
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 PRIOR FILING DATE: 2000-06-09
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; Sequence 5, Application US/09739936
; Patent No. US20020058246A1
    GENERAL INFORMATION:
         APPLICANT: Markvardsen, Peter
                    Bjornvad, Mads Eskelund
                    Mikkelsen, Frank
                    Diderichsen, Borge
         TITLE OF INVENTION: Phage Display For Detergent
                             Enzyme Activity
        NUMBER OF SEQUENCES: 6
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CORRESPONDENCE ADDRESS:
             ADDRESSEE: No. US20020058246A1o No. US20020058246A1disk of No.
US20020058246A1th America, Inc.
             STREET: 405 Lexington Avenue
;
             CITY: New York
             STATE: NY
             COUNTRY: USA
             ZIP: 10174
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Diskette
             COMPUTER: IBM Compatible
             OPERATING SYSTEM: DOS
             SOFTWARE: FastSEQ for Windows Version 2.0
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             CLASSIFICATION: <Unknown>
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              FILING DATE: 29-JAN-1998
        ATTORNEY/AGENT INFORMATION:
             NAME: Lambiris, Elias J
             REGISTRATION NUMBER: 33,728
             REFERENCE/DOCKET NUMBER: 4542.204-US
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 212-867-0123
             TELEFAX: 212-878-9655
   INFORMATION FOR SEQ ID NO: 5:
        SEQUENCE CHARACTERISTICS:
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              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
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Db
RESULT 5
US-09-984-056-86
; Sequence 86, Application US/09984056
; Patent No. US20020120106A1
; GENERAL INFORMATION:
; APPLICANT: BOGOCH, SAMUEL
  APPLICANT: BOGOCH, ELENORE S.
; TITLE OF INVENTION: ANTHRAX AND SMALL POX REPLIKINS AND METHODS OF USE
; FILE REFERENCE: 09425-46903
; CURRENT APPLICATION NUMBER: US/09/984,056
; CURRENT FILING DATE: 2001-10-26
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  PRIOR FILING DATE: 2001-07-09
   PRIOR APPLICATION NUMBER: 60/278,761
  PRIOR FILING DATE: 2001-03-27
   PRIOR APPLICATION NUMBER: 09/146,755
   PRIOR FILING DATE: 1998-09-04
   PRIOR APPLICATION NUMBER: 09/817,144
  PRIOR FILING DATE: 2001-03-27
  PRIOR APPLICATION NUMBER: 08/198,139
  PRIOR FILING DATE: 1994-02-17
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           4 EKP 6
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; Patent No. US20020142008A1
; GENERAL INFORMATION:
; APPLICANT: O'HANLEY, PETER
  APPLICANT: DENICH, KENNETH
  APPLICANT: SCHMIDT, M. ALEXANDER
  TITLE OF INVENTION: IMMUNOGENIC PILI PRESENTING FOREIGN PEPTIDES, THEIR
  TITLE OF INVENTION: PRODUCTION AND USE
  FILE REFERENCE: 050939/0104
  CURRENT APPLICATION NUMBER: US/09/833,079
  CURRENT FILING DATE: 2001-04-12
  NUMBER OF SEQ ID NOS: 39
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US-09-833-079-2
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; Patent No. US20020142008A1
; GENERAL INFORMATION:
  APPLICANT: O'HANLEY, PETER
  APPLICANT:
              DENICH, KENNETH
  APPLICANT: SCHMIDT, M. ALEXANDER
  TITLE OF INVENTION: IMMUNOGENIC PILI PRESENTING FOREIGN PEPTIDES, THEIR
  TITLE OF INVENTION: PRODUCTION AND USE
  FILE REFERENCE: 050939/0104
  CURRENT APPLICATION NUMBER: US/09/833,079
  CURRENT FILING DATE: 2001-04-12
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; Sequence 60, Application US/09791378
; Patent No. US20020142303A1
; GENERAL INFORMATION:
  APPLICANT: Parekh, Rajesh
  TITLE OF INVENTION: PROTEINS, GENES AND THEIR USE FOR DIAGNOSIS AND TREATMENT
OF
  TITLE OF INVENTION: SCHIZOPHRENIA
  FILE REFERENCE: 9195-061-999
  CURRENT APPLICATION NUMBER: US/09/791,378
  CURRENT FILING DATE: 2001-02-23
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  PRIOR FILING DATE: 2000-12-28
  NUMBER OF SEQ ID NOS: 677
  SOFTWARE: PatentIn version 3.0
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; Sequence 86, Application US/09984057
; Patent No. US20020151677A1
; GENERAL INFORMATION:
; APPLICANT: BOGOCH, SAMUEL
  APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: REPLIKINS AND METHODS OF IDENTIFYING
  TITLE OF INVENTION: REPLIKIN-CONTAINING SEQUENCES
; FILE REFERENCE: 09425-46902
  CURRENT APPLICATION NUMBER: US/09/984,057
  CURRENT FILING DATE: 2001-10-26
  PRIOR APPLICATION NUMBER: 60/303,396
  PRIOR FILING DATE: 2001-07-09
  PRIOR APPLICATION NUMBER: 60/278,761
  PRIOR FILING DATE: 2001-03-27
  PRIOR APPLICATION NUMBER: 09/146,755
  PRIOR FILING DATE: 1998-09-04
  PRIOR APPLICATION NUMBER: 09/817,144
  PRIOR FILING DATE: 2001-03-27
  PRIOR APPLICATION NUMBER: 08/198,139
  PRIOR FILING DATE: 1994-02-17
; NUMBER OF SEQ ID NOS: 90
  SOFTWARE: PatentIn 2.1
; SEQ ID NO 86
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-984-057-86
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
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                                                                           0;
           4 EKP 6
Qу
             Db
           4 EKP 6
RESULT 10
US-09-826-290-86
; Sequence 86, Application US/09826290
; Patent No. US20020164668A1
; GENERAL INFORMATION:
; APPLICANT: Durham, L.Kathryn
; APPLICANT: Friedman, David L.
; APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
```

27.3%; Score 3; DB 9; Length 11;

Query Match

```
APPLICANT: Kimmel, Lida H.
              Parekh, Rajesh Bhikhu
  APPLICANT:
  APPLICANT: Potter, David M.
              Rohlff, Christian
  APPLICANT:
              Silber, B. Michael
  APPLICANT:
              Stiger, Thomas R.
  APPLICANT:
  APPLICANT:
              Sunderland, P. Trey
  APPLICANT: Townsend, Robert Reid
  APPLICANT: White, Frost
  APPLICANT: Williams, Stephen A.
  TITLE OF INVENTION: Nucleic Acid Molecules, Polypeptides and
  TITLE OF INVENTION: Uses Therefor, Including Diagnosis and Treatment of
  TITLE OF INVENTION: Alzheimer's Disease
  FILE REFERENCE: 2572-1-001 N2
  CURRENT APPLICATION NUMBER: US/09/826,290
  CURRENT FILING DATE: 2001-04-30
  PRIOR APPLICATION NUMBER: US 60/194,504
   PRIOR FILING DATE: 2000-04-03
  PRIOR APPLICATION NUMBER: US 60/253,647
  PRIOR FILING DATE: 2000-11-28
  NUMBER OF SEQ ID NOS: 492
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 86
   LENGTH: 11
   TYPE: PRT
   ORGANISM: homo sapien
US-09-826-290-86
                          27.3%; Score 3; DB 9; Length 11;
 Query Match
  Best Local Similarity
                         100.0%; Pred. No. 8.1e+03;
                              0; Mismatches
                                                                0; Gaps
            3; Conservative
                                                  0; Indels
                                                                            0;
           4 EKP 6
Qу
             +
Db
           1 EKP 3
RESULT 11
US-09-826-290-119
; Sequence 119, Application US/09826290
; Patent No. US20020164668A1
; GENERAL INFORMATION:
  APPLICANT: Durham, L.Kathryn
  APPLICANT: Friedman, David L.
  APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
              Kimmel, Lida H.
  APPLICANT:
  APPLICANT:
              Parekh, Rajesh Bhikhu
  APPLICANT: Potter, David M.
  APPLICANT: Rohlff, Christian
  APPLICANT: Silber, B. Michael
  APPLICANT:
              Stiger, Thomas R.
  APPLICANT:
              Sunderland, P. Trey
 APPLICANT:
              Townsend, Robert Reid
  APPLICANT:
              White, Frost
  APPLICANT:
              Williams, Stephen A.
  TITLE OF INVENTION: Nucleic Acid Molecules, Polypeptides and
  TITLE OF INVENTION: Uses Therefor, Including Diagnosis and Treatment of
```

```
TITLE OF INVENTION: Alzheimer's Disease
  FILE REFERENCE: 2572-1-001 N2
  CURRENT APPLICATION NUMBER: US/09/826,290
  CURRENT FILING DATE: 2001-04-30
   PRIOR APPLICATION NUMBER: US 60/194,504
   PRIOR FILING DATE: 2000-04-03
  PRIOR APPLICATION NUMBER: US 60/253,647
  PRIOR FILING DATE: 2000-11-28
 NUMBER OF SEO ID NOS: 492
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 119
   LENGTH: 11
   TYPE: PRT
   ORGANISM: homo sapien
US-09-826-290-119
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
                                                                0; Gaps
 Matches
           3; Conservative 0; Mismatches
                                                0; Indels
                                                                            0;
           4 EKP 6
Qу
             111
           1 EKP 3
Db
RESULT 12
US-09-826-290-246
; Sequence 246, Application US/09826290
; Patent No. US20020164668A1
; GENERAL INFORMATION:
; APPLICANT: Durham, L.Kathryn
  APPLICANT: Friedman, David L.
  APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
  APPLICANT: Kimmel, Lida H.
  APPLICANT: Parekh, Rajesh Bhikhu
  APPLICANT: Potter, David M.
  APPLICANT: Rohlff, Christian
  APPLICANT: Silber, B. Michael
  APPLICANT: Stiger, Thomas R.
  APPLICANT: Sunderland, P. Trey
  APPLICANT: Townsend, Robert Reid
  APPLICANT: White, Frost
  APPLICANT: Williams, Stephen A.
  TITLE OF INVENTION: Nucleic Acid Molecules, Polypeptides and
  TITLE OF INVENTION: Uses Therefor, Including Diagnosis and Treatment of
  TITLE OF INVENTION: Alzheimer's Disease
  FILE REFERENCE: 2572-1-001 N2
  CURRENT APPLICATION NUMBER: US/09/826,290
  CURRENT FILING DATE: 2001-04-30
  PRIOR APPLICATION NUMBER: US 60/194,504
  PRIOR FILING DATE: 2000-04-03
  PRIOR APPLICATION NUMBER: US 60/253,647
  PRIOR FILING DATE: 2000-11-28
  NUMBER OF SEQ ID NOS: 492
 SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 246
  LENGTH: 11
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ORGANISM: homo sapien
US-09-826-290-246
                          27.3%; Score 3; DB 9; Length 11;
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  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
                                                                             0;
                              0; Mismatches
  Matches
             3; Conservative
                                                   0; Indels
                                                                 0; Gaps
            4 EKP 6
Qу
              | | |
Db
            1 EKP 3
RESULT 13
US-09-791-393-96
; Sequence 96, Application US/09791393
; Publication No. US20030032200A1
; GENERAL INFORMATION:
  APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
  APPLICANT: Parekh, Rajesh Bhikhu
 APPLICANT: Rohlff, Christian
  TITLE OF INVENTION: Proteins, Genes and Their Use for
  TITLE OF INVENTION: Diagnosis and Treatment of Bipolar Affective Disorder
(BAD)
  TITLE OF INVENTION: and Unipolar Depression
  FILE REFERENCE: 2543-1-001 N1
  CURRENT APPLICATION NUMBER: US/09/791,393
   CURRENT FILING DATE: 2002-01-02
  EARLIER APPLICATION NUMBER: GB 0004412.3
  EARLIER FILING DATE: 2000-02-24
  EARLIER APPLICATION NUMBER: GB 0030050.9
  EARLIER FILING DATE: 2000-12-08
  EARLIER APPLICATION NUMBER: US 60/254,830
 EARLIER FILING DATE: 2000-12-12
  NUMBER OF SEQ ID NOS: 308
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEO ID NO 96
   LENGTH: 11
    TYPE: PRT
    ORGANISM: homo sapien
US-09-791-393-96
                          27.3%; Score 3; DB 10; Length 11;
  Query Match
                          100.0%; Pred. No. 8.1e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches
                                                   0;
                                                      Indels
                                                                 0; Gaps
                                                                             0;
            4 EKP 6
Qу
              \mathbf{H}
Db
            1 EKP 3
RESULT 14
US-09-791-389-96
; Sequence 96, Application US/09791389
; Publication No. US20030032773A1
; GENERAL INFORMATION:
; APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
```

TYPE: PRT

```
; APPLICANT: Parekh, Rajesh Bhikhu
; APPLICANT: Rohlff, Christian
; APPLICANT: Terrett, Jonathan Alexander
  APPLICANT: Tyson, Kerry Louise
   TITLE OF INVENTION: Proteins, Genes and Their Use for
   TITLE OF INVENTION: Diagnosis and Treatment of Bipolar Affective Disorder
(BAD)
  TITLE OF INVENTION: and Unipolar Depression
  FILE REFERENCE: 2543-1-001 N2
; CURRENT APPLICATION NUMBER: US/09/791,389
; CURRENT FILING DATE: 2001-02-23
; PRIOR APPLICATION NUMBER: GB 0004412.3
  PRIOR FILING DATE: 2000-02-24
; PRIOR APPLICATION NUMBER: GB 0030050.9
; PRIOR FILING DATE: 2000-12-08
; PRIOR APPLICATION NUMBER: US 60/254,830
; PRIOR FILING DATE: 2000-12-12
; NUMBER OF SEQ ID NOS: 308
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 96
   LENGTH: 11
   TYPE: PRT
   ORGANISM: homo sapien
US-09-791-389-96
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.1e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                           0;
           4 EKP 6
Qу
             \perp
Db
           1 EKP 3
RESULT 15
US-09-906-393A-9
; Sequence 9, Application US/09906393A
; Publication No. US20030039970A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Zhou
 APPLICANT: Xiao, Wuhan
  TITLE OF INVENTION: METHOD OF PROGNOSING CANCER AND THE PROTEINS INVOLVED
  FILE REFERENCE: 1720-1-001CIP
  CURRENT APPLICATION NUMBER: US/09/906,393A
  CURRENT FILING DATE: 2001-07-16
  PRIOR APPLICATION NUMBER: 60/218,761
  PRIOR FILING DATE: 2000-07-17
; NUMBER OF SEQ ID NOS: 36
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 9
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-906-393A-9
 Query Match
                       27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.1e+03;
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3; Conservative 0; Mismatches 0; Indels
  Matches
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           1 AKK 3
QУ
             | | | |
            3 AKK 5
Db
RESULT 16
US-09-876-904A-200
; Sequence 200, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
   CURRENT FILING DATE: 2001-06-08
   PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 200
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Saccharomyces cerevisiae
    OTHER INFORMATION: Karyophilic peptide
US-09-876-904A-200
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 8.1e+03;
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                                                                0; Gaps
                                                                            0;
           1 AKK 3
Qу
             Db
           3 AKK 5
RESULT 17
US-09-876-904A-273
; Sequence 273, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
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; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 273
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Drosophila sp.
    FEATURE:
    OTHER INFORMATION: Recombination repair protein 1
US-09-876-904A-273
                          27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.1e+03;
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            3; Conservative
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                                                       Indels
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                                                                     Gaps
                                                                             0;
            2 KKE 4
Qу
              \perp
            7 KKE 9
RESULT 18
US-09-876-904A-434
; Sequence 434, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEO ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 434
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Drosophila sp.
   FEATURE:
   OTHER INFORMATION: Drosophila ultrabiothorax protein (from the
   OTHER INFORMATION: conserved 61 amino acid homeodomain segment only).
US-09-876-904A-434
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                          100.0%; Pred. No. 8.1e+03;
            3; Conservative
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Qу
           2 KKE 4
              | | |
Db
            8 KKE 10
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RESULT 19

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; Sequence 591, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
   TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
   FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
 CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 591
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Unknown Organism
    FEATURE:
   OTHER INFORMATION: Description of Unknown Organism: Trout testis H1 (194
aa).
US-09-876-904A-591
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
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Qy
            1 AKK 3
             1 AKK 3
Db
RESULT 20
US-09-876-904A-597
; Sequence 597, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 597
  LENGTH: 11
   TYPE: PRT
   ORGANISM: Parechinus angulosus
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US-09-876-904A-591

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FEATURE:
    OTHER INFORMATION: Sea urchin Parechinus angulosus sperm H1 (248 aa).
US-09-876-904A-597
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                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
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                                                                 0; Gaps
                                                                             0;
            1 AKK 3
Qy
              -111
Db
            1 AKK 3
RESULT 21
US-09-820-053A-113
; Sequence 113, Application US/09820053A
; Publication No. US20030083243A1
; GENERAL INFORMATION:
  APPLICANT: Owen, Donald R.
  TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES
   FILE REFERENCE: HELX027
   CURRENT APPLICATION NUMBER: US/09/820,053A
   CURRENT FILING DATE: 2001-03-28
  NUMBER OF SEQ ID NOS: 165
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 113
   LENGTH: 11
    TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
    FEATURE:
    OTHER INFORMATION: SYNTHETIC SEQUENCE
    NAME/KEY: MOD RES
    LOCATION: (11)
    OTHER INFORMATION: AMIDATION
US-09-820-053A-113
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
  Matches
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                               0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            1 AKK 3
Qу
             Db
            9 AKK 11
RESULT 22
US-09-820-053A-139
; Sequence 139, Application US/09820053A
; Publication No. US20030083243A1
; GENERAL INFORMATION:
; APPLICANT: Owen, Donald R.
  TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES
  FILE REFERENCE: HELX027
  CURRENT APPLICATION NUMBER: US/09/820,053A
  CURRENT FILING DATE: 2001-03-28
  NUMBER OF SEQ ID NOS: 165
  SOFTWARE: PatentIn Ver. 2.1
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; SEQ ID NO 139
    LENGTH: 11
    TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
   OTHER INFORMATION: SYNTHETIC SEQUENCE
    NAME/KEY: MOD RES
   LOCATION: (11)
    OTHER INFORMATION: AMIDATION
US-09-820-053A-139
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
  Matches
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                               0; Mismatches
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Qу
             Db
           8 AKK 10
RESULT 23
US-09-978-309A-49
; Sequence 49, Application US/09978309A
; Publication No. US20030100490A1
; GENERAL INFORMATION:
; APPLICANT: Cruz, Tony
; APPLICANT: Pastrak, Aleksandra
; APPLICANT: Turley, Eva A.
  TITLE OF INVENTION: Compositions and Methods for Treating Cellular Response
to
  TITLE OF INVENTION: Injury and Other Proliferating Cell Disorders Regulated
;
by
  TITLE OF INVENTION: Hyaladherin and Hyaluronans
  FILE REFERENCE: 033352-010
  CURRENT APPLICATION NUMBER: US/09/978,309A
  CURRENT FILING DATE: 2002-04-04
  PRIOR APPLICATION NUMBER: US 09/685,010
  PRIOR FILING DATE: 2000-10-05
   PRIOR APPLICATION NUMBER: US 09/541,522
  PRIOR FILING DATE: 2000-04-03
  PRIOR APPLICATION NUMBER: US 60/127,457
  PRIOR FILING DATE: 1999-04-01
  NUMBER OF SEQ ID NOS: 84
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEO ID NO 49
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapien
US-09-978-309A-49
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
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Qy
           3 KEK 5
             111
Db
           5 KEK 7
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RESULT 24
US-09-978-309A-84
; Sequence 84, Application US/09978309A
; Publication No. US20030100490A1
; GENERAL INFORMATION:
  APPLICANT: Cruz, Tony
  APPLICANT: Pastrak, Aleksandra
   APPLICANT: Turley, Eva A.
   TITLE OF INVENTION: Compositions and Methods for Treating Cellular Response
t.o
   TITLE OF INVENTION: Injury and Other Proliferating Cell Disorders Regulated
;
by
   TITLE OF INVENTION: Hyaladherin and Hyaluronans
;
   FILE REFERENCE: 033352-010
   CURRENT APPLICATION NUMBER: US/09/978,309A
   CURRENT FILING DATE: 2002-04-04
   PRIOR APPLICATION NUMBER: US 09/685,010
   PRIOR FILING DATE: 2000-10-05
   PRIOR APPLICATION NUMBER: US 09/541,522
   PRIOR FILING DATE: 2000-04-03
   PRIOR APPLICATION NUMBER: US 60/127,457
   PRIOR FILING DATE: 1999-04-01
  NUMBER OF SEQ ID NOS: 84
   SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 84
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Mus musculus
US-09-978-309A-84
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.1e+03;
 Matches
           3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            3 KEK 5
Qу
              111
            5 KEK 7
Db
RESULT 25
US-09-854-248-20
; Sequence 20, Application US/09854248
; Publication No. US20030175247A1
; GENERAL INFORMATION:
  APPLICANT: Salgaller, Michael L.
  APPLICANT: Boynton, Alton L.
  TITLE OF INVENTION: METHOD TO INCREASE CLASS I PRESENTATION OF EXOGENOUS
  TITLE OF INVENTION: ANTIGENS BY HUMAN DENDRITIC CELLS
  FILE REFERENCE: 20093-8-1US
  CURRENT APPLICATION NUMBER: US/09/854,248
  CURRENT FILING DATE:
                         2001-05-11
  PRIOR APPLICATION NUMBER: 60/203,758
  PRIOR FILING DATE: 2000-05-12
  NUMBER OF SEQ ID NOS: 37
  SOFTWARE: PatentIn Ver. 2.1
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; SEQ ID NO 20
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-854-248-20
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.1e+03;
  Matches
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            2 KKE 4
Qy
              111
Db
            9 KKE 11
RESULT 26
US-10-398-104-210
; Sequence 210, Application US/10398104
; Publication No. US20040047880A1
: GENERAL INFORMATION:
  APPLICANT: De Bolle, Xavier Thomas
              Letesson, Jean-Jacques
  APPLICANT:
  APPLICANT:
              Lobet, Yves
  APPLICANT: Mertens, Pascal Yvon
  APPLICANT:
              Poolman, Jan
  APPLICANT: Voet, Pierre
  TITLE OF INVENTION: COMPONENT FOR VACCINE
  FILE REFERENCE: B45242
  CURRENT APPLICATION NUMBER: US/10/398,104
  CURRENT FILING DATE: 2003-01-04
  PRIOR APPLICATION NUMBER: PCT/EP01/11409
  PRIOR FILING DATE: 2001-10-03
  PRIOR APPLICATION NUMBER: GB 0024200.8
  PRIOR FILING DATE: 2000-10-03
  NUMBER OF SEQ ID NOS: 352
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 210
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: LOS peptide mimotope sequence
US-10-398-104-210
  Query Match
                          27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.1e+03;
            3; Conservative
 Matches
                               0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
           9 PND 11
Qу
              8 PND 10
Db
RESULT 27
US-10-601-837-219
; Sequence 219, Application US/10601837
; Publication No. US20040053309A1
```

```
; GENERAL INFORMATION:
; APPLICANT: Holt, Gordon D
; APPLICANT: Kelly, Michael D
; APPLICANT: Kennedy, Sandra J
  APPLICANT: Moyses, Christopher
  TITLE OF INVENTION: Proteins, Genes and Their Use for Diagnosis and Treatment
of Kidney
  TITLE OF INVENTION: Response
  FILE REFERENCE: 2543-1-030
  CURRENT APPLICATION NUMBER: US/10/601,837
  CURRENT FILING DATE: 2003-06-23
  PRIOR APPLICATION NUMBER: PCT/GB01/05777
  PRIOR FILING DATE: 2001-12-24
  PRIOR APPLICATION NUMBER: US 60/260392
; PRIOR FILING DATE: 2000-12-29
 NUMBER OF SEQ ID NOS: 272
  SOFTWARE: PatentIn version 3.1
; SEO ID NO 219
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Ratus No. US20040053309Alvegicus
US-10-601-837-219
  Query Match
                          27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.1e+03;
            3; Conservative
                                 0; Mismatches
                                                   0;
                                                      Indels
                                                                 0; Gaps
                                                                             0;
            5 KPN 7
Qу
              Db
            3 KPN 5
RESULT 28
US-10-108-795-28
; Sequence 28, Application US/10108795
; Publication No. US20030033633A1
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
  APPLICANT: Millward, Thomas A
  TITLE OF INVENTION: Calcium Regulated Kinase
  FILE REFERENCE: 30110
  CURRENT APPLICATION NUMBER: US/10/108,795
  CURRENT FILING DATE: 2002-03-28
  PRIOR APPLICATION NUMBER: 09/133,062
  PRIOR FILING DATE: 1998-08-12
  PRIOR APPLICATION NUMBER: GB 9717089.8
  PRIOR FILING DATE: 1997-08-12
  PRIOR APPLICATION NUMBER: GB 9717499.9
  PRIOR FILING DATE: 1998-08-19
  NUMBER OF SEQ ID NOS: 34
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 28
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
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```
OTHER INFORMATION: internal peptide
US-10-108-795-28
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
            3; Conservative 0; Mismatches
                                                     Indels
                                                                 0; Gaps
                                                                             0;
            1 AKK 3
Qу
             -111
Db
            3 AKK 5
RESULT 29
US-10-108-795-29
; Sequence 29, Application US/10108795
; Publication No. US20030033633A1
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
  APPLICANT: Millward, Thomas A
   TITLE OF INVENTION: Calcium Regulated Kinase
   FILE REFERENCE: 30110
  CURRENT APPLICATION NUMBER: US/10/108,795
  CURRENT FILING DATE: 2002-03-28
  PRIOR APPLICATION NUMBER: 09/133,062
  PRIOR FILING DATE: 1998-08-12
  PRIOR APPLICATION NUMBER: GB 9717089.8
  PRIOR FILING DATE: 1997-08-12
  PRIOR APPLICATION NUMBER: GB 9717499.9
   PRIOR FILING DATE: 1998-08-19
  NUMBER OF SEQ ID NOS: 34
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 29
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence:synthetic peptide
    OTHER INFORMATION: internal peptide
US-10-108-795-29
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
           3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            1 AKK 3
              \mathbf{I}
Db
            3 AKK 5
RESULT 30
US-10-091-135-9
; Sequence 9, Application US/10091135
; Publication No. US20030039660A1
; GENERAL INFORMATION:
  APPLICANT: King, Te Piao
  APPLICANT: Spangfort, Michael Dho
  TITLE OF INVENTION: RECOMBINANT HYBRID ALLERGEN CONSTRUCTS WITH REDUCED
```

```
; TITLE OF INVENTION: ALLERGENICITY THAT RETAIN IMMUNOGENICITY OF THE NATURAL
ALLERGEN
   FILE REFERENCE: 2313/1H587-US1
  CURRENT APPLICATION NUMBER: US/10/091,135
   CURRENT FILING DATE: 2002-03-04
   PRIOR APPLICATION NUMBER: US 60/272,818
   PRIOR FILING DATE: 2001-03-02
   NUMBER OF SEQ ID NOS: 98
   SOFTWARE: PatentIn version 3.1
 SEQ ID NO 9
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Vespula vulgaris
US-10-091-135-9
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.1e+03;
  Matches
            3; Conservative
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                                                   0; Indels
                                                                  0; Gaps
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            5 KPN 7
Qу
              111
Db
            2 KPN 4
RESULT 31
US-10-115-365-28
; Sequence 28, Application US/10115365
; Publication No. US20030074694A1
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
  APPLICANT: Millward, Thomas A
  TITLE OF INVENTION: Calcium Regulated Kinase
  FILE REFERENCE: 30110
  CURRENT APPLICATION NUMBER: US/10/115,365
  CURRENT FILING DATE: 2002-04-03
  PRIOR APPLICATION NUMBER: 09/133,062
; PRIOR FILING DATE: 1998-08-12
  PRIOR APPLICATION NUMBER: GB 9717499.9
  PRIOR FILING DATE: 1998-08-19
  NUMBER OF SEQ ID NOS: 34
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 28
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
    OTHER INFORMATION: internal peptide
US-10-115-365-28
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.1e+03;
  Matches
            3; Conservative 0; Mismatches
                                                                              0;
                                                  0; Indels
                                                                  0;
                                                                    Gaps
Qу
            1 AKK 3
              \parallel \parallel \parallel
Db
            3 AKK 5
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RESULT 32
US-10-115-365-29
; Sequence 29, Application US/10115365
; Publication No. US20030074694A1
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
  APPLICANT: Millward, Thomas A
  TITLE OF INVENTION: Calcium Regulated Kinase
  FILE REFERENCE: 30110
  CURRENT APPLICATION NUMBER: US/10/115,365
  CURRENT FILING DATE: 2002-04-03
  PRIOR APPLICATION NUMBER: 09/133,062
  PRIOR FILING DATE: 1998-08-12
  PRIOR APPLICATION NUMBER: GB 9717499.9
  PRIOR FILING DATE: 1998-08-19
  NUMBER OF SEQ ID NOS: 34
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 29
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
   OTHER INFORMATION: internal peptide
US-10-115-365-29
                          27.3%; Score 3; DB 14; Length 11;
 Query Match
                          100.0%;
 Best Local Similarity
                                  Pred. No. 8.1e+03;
                                                   0;
 Matches
            3; Conservative
                                 0; Mismatches
                                                       Indels
                                                                              0;
                                                                 0;
                                                                     Gaps
            1 AKK 3
Qу
              111
            3 AKK 5
RESULT 33
US-10-075-869-26
; Sequence 26, Application US/10075869
; Publication No. US20030104622A1
; GENERAL INFORMATION:
  APPLICANT: Robbins, Paul D.
  APPLICANT: Mi, Zhibao
  APPLICANT:
              Frizzell, Raymond
  APPLICANT:
              Glorioso, Joseph C.
              Gambotto, Andrea
  APPLICANT:
  TITLE OF INVENTION: IDENTIFICATION OF PEPTIDES THAT
  TITLE OF INVENTION: FACILITATE UPTAKE AND CYTOPLASMIC AND/OR NUCLEAR
TRANSPORT
  TITLE OF INVENTION:
                        OF PROTEINS, DNA AND VIRUSES
  FILE REFERENCE: AP32573-AAA 072396.0237
  CURRENT APPLICATION NUMBER: US/10/075,869
  CURRENT FILING DATE: 2002-02-13
  PRIOR APPLICATION NUMBER: 60/151,980
  PRIOR FILING DATE: 1999-09-01
  PRIOR APPLICATION NUMBER: 60/188,944
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; PRIOR FILING DATE: 2000-03-13
; NUMBER OF SEQ ID NOS: 99
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 26
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: random peptide library
US-10-075-869-26
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
                         100.0%; Pred. No. 8.1e+03;
  Best Local Similarity
  Matches
            3; Conservative 0; Mismatches
                                                0;
                                                      Indels
                                                                0;
                                                                    Gaps
                                                                            0;
            1 AKK 3
Qy
             111
Db
            4 AKK 6
RESULT 34
US-10-109-171-113
; Sequence 113, Application US/10109171
; Publication No. US20030109452A1
; GENERAL INFORMATION:
  APPLICANT: Owen, Donald R.
  TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES AND METHODS FOR THEIR USE
  FILE REFERENCE: HELX028
  CURRENT APPLICATION NUMBER: US/10/109,171
  CURRENT FILING DATE: 2002-03-28
  NUMBER OF SEQ ID NOS: 165
  SOFTWARE: PatentIn Ver. 2.1
;
; SEQ ID NO 113
   LENGTH: 11
   TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
   OTHER INFORMATION: SYNTHETIC SEQUENCE
   NAME/KEY: MOD RES
   LOCATION: (11)
   OTHER INFORMATION: AMIDATION
US-10-109-171-113
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 8.1e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
Qу
           1 AKK 3
             111
           9 AKK 11
Db
RESULT 35
US-10-109-171-139
; Sequence 139, Application US/10109171
; Publication No. US20030109452A1
; GENERAL INFORMATION:
```

```
APPLICANT: Owen, Donald R.
  TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES AND METHODS FOR THEIR USE
  FILE REFERENCE: HELX028
   CURRENT APPLICATION NUMBER: US/10/109,171
  CURRENT FILING DATE: 2002-03-28
  NUMBER OF SEQ ID NOS: 165
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 139
   LENGTH: 11
   TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
   OTHER INFORMATION: SYNTHETIC SEQUENCE
   NAME/KEY: MOD RES
   LOCATION: (11)
   OTHER INFORMATION: AMIDATION
US-10-109-171-139
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
 Matches
          3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
Qу
           1 AKK 3
            111
Db
           8 AKK 10
RESULT 36
US-10-197-954-117
; Sequence 117, Application US/10197954
; Publication No. US20030119021A1
; GENERAL INFORMATION:
; APPLICANT: K"ster, Hubert
; APPLICANT: Siddiqi, Suhaib
; APPLICANT: Little, Daniel
  TITLE OF INVENTION: Capture Compounds, Collections Thereof
  TITLE OF INVENTION: And Methods For Analyzing The Proteome And Complex
  TITLE OF INVENTION: Compositions
 FILE REFERENCE: 24743-2305
  CURRENT APPLICATION NUMBER: US/10/197,954
  CURRENT FILING DATE: 2002-07-16
  PRIOR APPLICATION NUMBER: 60/306,019
  PRIOR FILING DATE: 2001-07-16
  PRIOR APPLICATION NUMBER: 60/314,123
  PRIOR FILING DATE: 2001-08-21
  PRIOR APPLICATION NUMBER: 60/363,433
  PRIOR FILING DATE: 2002-03-11
  NUMBER OF SEQ ID NOS: 149
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 117
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo Sapien
   FEATURE:
   NAME/KEY: AMIDATION
   LOCATION: 11
  FEATURE:
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NAME/KEY: MOD RES
   LOCATION: 1
    OTHER INFORMATION: Xaa is pyroglutamic acid
US-10-197-954-117
                         27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
           3; Conservative 0; Mismatches
                                               0;
                                                     Indels
                                                                0; Gaps
           6 PNK 8
Qу
             \perp
Db
           4 PNK 6
RESULT 37
US-10-079-167-8
; Sequence 8, Application US/10079167
; Publication No. US20030138454A1
; GENERAL INFORMATION:
  APPLICANT: Hill, Adrian V.S.
  APPLICANT: McShane, Helen
  APPLICANT: Gilbert, Sarah C.
  APPLICANT: Reece, William
  APPLICANT: Schneider, Joerg
  TITLE OF INVENTION: Vaccination Method
  FILE REFERENCE: 2907.1000-001
  CURRENT APPLICATION NUMBER: US/10/079,167
  CURRENT FILING DATE: 2002-02-19
  PRIOR APPLICATION NUMBER: US 09/454,204
  PRIOR FILING DATE: 1999-12-09
  PRIOR APPLICATION NUMBER: PCT/GB98/01681
  PRIOR FILING DATE: 1998-06-09
  PRIOR APPLICATION NUMBER: GB 97 11957.2
  PRIOR FILING DATE: 1997-06-09
  PRIOR APPLICATION NUMBER: PCT/GB01/04116
  PRIOR FILING DATE: 2001-09-13
  PRIOR APPLICATION NUMBER: GB 00 23203.3
  PRIOR FILING DATE: 2001-09-21
  NUMBER OF SEQ ID NOS: 99
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 8
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown
   FEATURE:
   OTHER INFORMATION: CTL Epitope of the Malaria String
US-10-079-167-8
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
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           3; Conservative 0; Mismatches 0; Indels
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           3 KEK 5
Qу
             5 KEK 7
Db
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```
RESULT 38
US-10-355-975-33
; Sequence 33, Application US/10355975
; Publication No. US20030162277A1
; GENERAL INFORMATION:
  APPLICANT: Immunex Corporation
  APPLICANT: Bird, Timothy A.
  APPLICANT: Virca, G. Duke
  APPLICANT: Martin, Unja
  APPLICANT: Anderson, Dirk M.
  TITLE OF INVENTION: NOVEL MURINE AND HUMAN KINASES
  FILE REFERENCE: 2923-A
  CURRENT APPLICATION NUMBER: US/10/355,975
  CURRENT FILING DATE: 2003-01-30
  PRIOR APPLICATION NUMBER: US/09/579,664B
  PRIOR FILING DATE: 2000-05-26
; NUMBER OF SEQ ID NOS: 36
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 33
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
    OTHER INFORMATION: peptide
US-10-355-975-33
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
 Matches
           3; Conservative 0; Mismatches
                                                0;
                                                      Indels
                                                                 0; Gaps
Qу
            2 KKE 4
              \mathbf{I}
Db
            3 KKE 5
RESULT 39
US-10-116-212-28
; Sequence 28, Application US/10116212
; Publication No. US20030163844A1
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
 APPLICANT: Millward, Thomas A
 TITLE OF INVENTION: Calcium Regulated Kinase
  FILE REFERENCE: 30110
  CURRENT APPLICATION NUMBER: US/10/116,212
  CURRENT FILING DATE: 2002-04-03
  PRIOR APPLICATION NUMBER: US/09/133,062
  PRIOR FILING DATE: 1998-08-12
  PRIOR APPLICATION NUMBER: GB 9717089.8
; PRIOR FILING DATE: 1997-08-12
; PRIOR APPLICATION NUMBER: GB 9717499.9
  PRIOR FILING DATE: 1998-08-19
; NUMBER OF SEQ ID NOS: 34
 SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 28
   LENGTH: 11
   TYPE: PRT
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ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
    OTHER INFORMATION: internal peptide
US-10-116-212-28
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
          3; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
            1 AKK 3
Qу
              111
            3 AKK 5
Db
RESULT 40
US-10-116-212-29
; Sequence 29, Application US/10116212
; Publication No. US20030163844A1
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
  APPLICANT: Millward, Thomas A
  TITLE OF INVENTION: Calcium Regulated Kinase
  FILE REFERENCE: 30110
  CURRENT APPLICATION NUMBER: US/10/116,212
  CURRENT FILING DATE: 2002-04-03
  PRIOR APPLICATION NUMBER: US/09/133,062
 PRIOR FILING DATE: 1998-08-12
  PRIOR APPLICATION NUMBER: GB 9717089.8
  PRIOR FILING DATE: 1997-08-12
  PRIOR APPLICATION NUMBER: GB 9717499.9
  PRIOR FILING DATE: 1998-08-19
  NUMBER OF SEQ ID NOS: 34
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 29
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:synthetic peptide
    OTHER INFORMATION: internal peptide
US-10-116-212-29
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
                         100.0%; Pred. No. 8.1e+03;
  Best Local Similarity
                               0; Mismatches 0;
 Matches
           3; Conservative
                                                     Indels
                                                                0; Gaps
                                                                            0;
Qу
           1 AKK 3
             111
Db
           3 AKK 5
RESULT 41
US-10-226-629A-22
; Sequence 22, Application US/10226629A
; Publication No. US20030166504A1
; GENERAL INFORMATION:
```

```
; APPLICANT: Myriad Genetics, Inc.
; APPLICANT: Morham, Scott
; APPLICANT: Zavitz, Kenton
  APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Therapeutic Compositions and Methods for Treating Viral
  FILE REFERENCE: 5006.01
  CURRENT APPLICATION NUMBER: US/10/226,629A
  CURRENT FILING DATE: 2002-08-22
  PRIOR APPLICATION NUMBER: US 60/314,182
; PRIOR FILING DATE: 2001-08-22
; NUMBER OF SEQ ID NOS: 736
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 22
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Equine infectious anemia virus
US-10-226-629A-22
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                               0; Gaps
                                                                           0;
           2 KKE 4
Qу
            111
Db
           8 KKE 10
RESULT 42
US-10-226-629A-36
; Sequence 36, Application US/10226629A
; Publication No. US20030166504A1
; GENERAL INFORMATION:
; APPLICANT: Myriad Genetics, Inc.
; APPLICANT: Morham, Scott
             Zavitz, Kenton
; APPLICANT:
  APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Therapeutic Compositions and Methods for Treating Viral
Infection
; FILE REFERENCE: 5006.01
  CURRENT APPLICATION NUMBER: US/10/226,629A
  CURRENT FILING DATE: 2002-08-22
  PRIOR APPLICATION NUMBER: US 60/314,182
 PRIOR FILING DATE: 2001-08-22
; NUMBER OF SEQ ID NOS: 736
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 36
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Equine infectious anemia virus
US-10-226-629A-36
 Query Match
                         27.3%; Score 3; DB 14; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.1e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
Qу
```

```
RESULT 43
US-10-020-269-25
; Sequence 25, Application US/10020269
; Publication No. US20030175310A1
; GENERAL INFORMATION:
  APPLICANT: Mitchell, William M.
  APPLICANT: Stratton, Charles W.
   TITLE OF INVENTION: IDENTIFICATION OF ANTIGENIC PEPTIDE
   TITLE OF INVENTION: SEQUENCES
  FILE REFERENCE: VDB98-01
  CURRENT APPLICATION NUMBER: US/10/020,269
  CURRENT FILING DATE: 2001-12-14
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/025,596
   PRIOR FILING DATE: EARLIER FILING DATE: 1998-02-18
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/023,921
   PRIOR FILING DATE: EARLIER FILING DATE: 1996-08-14
  NUMBER OF SEQ ID NOS: 118
  SOFTWARE: FastSEQ for Windows Version 3.0
 SEQ ID NO 25
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Chlamydia pneumoniae
US-10-020-269-25
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
                         100.0%; Pred. No. 8.1e+03;
  Best Local Similarity
            3; Conservative
                              0; Mismatches
                                                0;
                                                      Indels
                                                                 0; Gaps
                                                                             0;
            3 KEK 5
Qу
              \Pi\Pi
Db
            9 KEK 11
RESULT 44
US-10-020-269-26
; Sequence 26, Application US/10020269
; Publication No. US20030175310A1
; GENERAL INFORMATION:
  APPLICANT: Mitchell, William M.
  APPLICANT: Stratton, Charles W.
  TITLE OF INVENTION: IDENTIFICATION OF ANTIGENIC PEPTIDE
  TITLE OF INVENTION: SEQUENCES
  FILE REFERENCE: VDB98-01
  CURRENT APPLICATION NUMBER: US/10/020,269
  CURRENT FILING DATE: 2001-12-14
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/025,596
  PRIOR FILING DATE: EARLIER FILING DATE: 1998-02-18
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/023,921
  PRIOR FILING DATE: EARLIER FILING DATE: 1996-08-14
  NUMBER OF SEQ ID NOS: 118
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 26
   LENGTH: 11
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```
ORGANISM: Homo sapiens
US-10-020-269-26
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
  Matches
          3; Conservative 0; Mismatches
                                               0; Indels
                                                               0; Gaps
                                                                           0;
Qу
           3 KEK 5
             Db
           9 KEK 11
RESULT 45
US-10-020-269-34
; Sequence 34, Application US/10020269
; Publication No. US20030175310A1
; GENERAL INFORMATION:
; APPLICANT: Mitchell, William M.
; APPLICANT: Stratton, Charles W.
  TITLE OF INVENTION: IDENTIFICATION OF ANTIGENIC PEPTIDE
; TITLE OF INVENTION: SEQUENCES
; FILE REFERENCE: VDB98-01
  CURRENT APPLICATION NUMBER: US/10/020,269
  CURRENT FILING DATE: 2001-12-14
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/025,596
  PRIOR FILING DATE: EARLIER FILING DATE: 1998-02-18
  PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/023,921
  PRIOR FILING DATE: EARLIER FILING DATE: 1996-08-14
; NUMBER OF SEQ ID NOS: 118
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 34
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Chlamydia pneumoniae
US-10-020-269-34
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           1 AKK 3
Qу
             111
Db
           3 AKK 5
RESULT 46
US-10-105-232-86
; Sequence 86, Application US/10105232
; Publication No. US20030180328A1
; GENERAL INFORMATION:
; APPLICANT: BOGOCH, SAMUEL
; APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: REPLIKIN PEPTIDES IN RAPID REPLICATION OF GLIOMA CELLS
; TITLE OF INVENTION: AND IN INFLUENZA EPIDEMICS
; FILE REFERENCE: 09425-46904
; CURRENT APPLICATION NUMBER: US/10/105,232
```

TYPE: PRT

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CURRENT FILING DATE: 2002-03-26
  PRIOR APPLICATION NUMBER: 60/303,396
  PRIOR FILING DATE: 2001-07-09
   PRIOR APPLICATION NUMBER: 60/278,761
   PRIOR FILING DATE: 2001-03-27
   PRIOR APPLICATION NUMBER: 09/146,755
   PRIOR FILING DATE: 1998-09-04
   PRIOR APPLICATION NUMBER: 09/817,144
   PRIOR FILING DATE: 2001-03-27
   PRIOR APPLICATION NUMBER: 08/198,139
   PRIOR FILING DATE: 1994-02-17
  NUMBER OF SEQ ID NOS: 535
  SOFTWARE: PatentIn 2.1
; SEQ ID NO 86
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-10-105-232-86
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
          3; Conservative 0; Mismatches 0; Indels
 Matches
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           4 EKP 6
Qу
             -111
Db
           4 EKP 6
RESULT 47
US-10-105-232-379
; Sequence 379, Application US/10105232
; Publication No. US20030180328A1
; GENERAL INFORMATION:
; APPLICANT: BOGOCH, SAMUEL
  APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: REPLIKIN PEPTIDES IN RAPID REPLICATION OF GLIOMA CELLS
  TITLE OF INVENTION: AND IN INFLUENZA EPIDEMICS
 FILE REFERENCE: 09425-46904
  CURRENT APPLICATION NUMBER: US/10/105,232
  CURRENT FILING DATE: 2002-03-26
  PRIOR APPLICATION NUMBER: 60/303,396
  PRIOR FILING DATE: 2001-07-09
  PRIOR APPLICATION NUMBER: 60/278,761
  PRIOR FILING DATE: 2001-03-27
  PRIOR APPLICATION NUMBER: 09/146,755
  PRIOR FILING DATE: 1998-09-04
  PRIOR APPLICATION NUMBER: 09/817,144
  PRIOR FILING DATE: 2001-03-27
  PRIOR APPLICATION NUMBER: 08/198,139
  PRIOR FILING DATE: 1994-02-17
  NUMBER OF SEQ ID NOS: 535
  SOFTWARE: PatentIn 2.1
; SEQ ID NO 379
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Plasmodium falciparum
US-10-105-232-379
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Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
            3; Conservative 0; Mismatches
                                                  0; Indels
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            2 KKE 4
Qy
              111
Db
            1 KKE 3
RESULT 48
US-10-189-437-86
; Sequence 86, Application US/10189437
; Publication No. US20030194414A1
; GENERAL INFORMATION:
; APPLICANT: BOGOCH, SAMUEL
; APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: REPLIKIN PEPTIDES AND ANTIBODIES THEREFORE
  FILE REFERENCE: 09425/46905
   CURRENT APPLICATION NUMBER: US/10/189,437
  CURRENT FILING DATE: 2002-07-08
  PRIOR APPLICATION NUMBER: 10/105,232
  PRIOR FILING DATE: 2002-03-26
  PRIOR APPLICATION NUMBER: 09/984,057
  PRIOR FILING DATE: 2001-10-26
  PRIOR APPLICATION NUMBER: 60/303,396
  PRIOR FILING DATE: 2001-07-09
  PRIOR APPLICATION NUMBER: 60/278,761
  PRIOR FILING DATE: 2001-03-27
  NUMBER OF SEQ ID NOS: 729
  SOFTWARE: PatentIn 2.1
; SEQ ID NO 86
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Homo sapiens
US-10-189-437-86
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
 Matches
            3; Conservative 0; Mismatches
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                                                                0; Gaps
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            4 EKP 6
Qу
             -1.11
Db
            4 EKP 6
RESULT 49
US-10-189-437-366
; Sequence 366, Application US/10189437
; Publication No. US20030194414A1
; GENERAL INFORMATION:
; APPLICANT: BOGOCH, SAMUEL
; APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: REPLIKIN PEPTIDES AND ANTIBODIES THEREFORE
; FILE REFERENCE: 09425/46905
  CURRENT APPLICATION NUMBER: US/10/189,437
; CURRENT FILING DATE: 2002-07-08
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PRIOR APPLICATION NUMBER: 10/105,232
  PRIOR FILING DATE: 2002-03-26
  PRIOR APPLICATION NUMBER: 09/984,057
  PRIOR FILING DATE: 2001-10-26
  PRIOR APPLICATION NUMBER: 60/303,396
  PRIOR FILING DATE: 2001-07-09
  PRIOR APPLICATION NUMBER: 60/278,761
  PRIOR FILING DATE: 2001-03-27
  NUMBER OF SEQ ID NOS: 729
  SOFTWARE: PatentIn 2.1
; SEQ ID NO 366
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Plasmodium falciparum
US-10-189-437-366
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
          3; Conservative 0; Mismatches
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                                                                 0; Gaps
                                                                             0;
Qу
           2 KKE 4
              111
Db
           1 KKE 3
RESULT 50
US-10-376-121A-31
; Sequence 31, Application US/10376121A
; Publication No. US20030216544A1
   GENERAL INFORMATION:
        APPLICANT: Harley, John
        TITLE OF INVENTION: METHODS AND REAGENTS FOR DIAGNOSIS OF
                             AUTOANTIBODIES
        NUMBER OF SEQUENCES: 218
        CORRESPONDENCE ADDRESS:
              ADDRESSEE: Patrea L. Pabst
              STREET: Suite 2000, 1201 West Peachtree Street, N.E.
              CITY: Atlanta
              STATE: GA
              COUNTRY: USA
              ZIP: 30309-3400
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
        CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/10/376,121A
              FILING DATE: 27-Mar-2003
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 07/867,819
              FILING DATE: April 13, 1992
             APPLICATION NUMBER: 07/648,205
             FILING DATE: January 31, 1991
             APPLICATION NUMBER: 07/472,947
              FILING DATE: January 31, 1990
```

```
ATTORNEY/AGENT INFORMATION:
              NAME: Pabst, Patrea L.
              REGISTRATION NUMBER: 31,284
              REFERENCE/DOCKET NUMBER: OMRF114CIP(2)DIV(2)
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (404)-817-8473
              TELEFAX: (404)-817-8588
    INFORMATION FOR SEQ ID NO: 31:
         SEQUENCE CHARACTERISTICS:
;
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         FEATURE:
              NAME/KEY: Binding-site
              LOCATION: 1..8
         SEQUENCE DESCRIPTION: SEQ ID NO: 31:
US-10-376-121A-31
                          27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
           3; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            3 KEK 5
Qу
             111
Db
           7 KEK 9
RESULT 51
US-10-366-493-26
; Sequence 26, Application US/10366493
; Publication No. US20030219826A1
; GENERAL INFORMATION:
; APPLICANT: Robbins, Paul D.
; APPLICANT: Mi, Zhibao
 APPLICANT: Frizzell, Raymond
  APPLICANT: Glorioso, Joseph C.
  APPLICANT: Gambotto, Andrea
APPLICANT: Mai, Jeffrey C.
  TITLE OF INVENTION: IDENTIFICATION OF PEPTIDES THAT FACILITATE UPTAKE AND
CYTOPLASMIC AND /OR
  TITLE OF INVENTION: NUCLEAR TRANSPORT
  TITLE OF INVENTION: OF PROTEINS, DNA AND VIRUSES
  FILE REFERENCE: AP32573-A-A-A-A 072396.0246
  CURRENT APPLICATION NUMBER: US/10/366,493
  CURRENT FILING DATE: 2003-02-12
  PRIOR APPLICATION NUMBER: 10/075,869
  PRIOR FILING DATE: 2002-02-13
   PRIOR APPLICATION NUMBER: 09/653,182
  PRIOR FILING DATE: 2000-08-31
  PRIOR APPLICATION NUMBER: 60/188,944
  PRIOR FILING DATE: 2000-03-13
  PRIOR APPLICATION NUMBER: 60/151,980
  PRIOR FILING DATE: 1999-09-01
; NUMBER OF SEQ ID NOS: 107
  SOFTWARE: FastSEQ for Windows Version 4.0
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; SEQ ID NO 26
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: pep 20
US-10-366-493-26
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                          27.3%; Score 3; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
            3; Conservative
                              0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
            1 AKK 3
Qу
              III
Db
            4 AKK 6
RESULT 52
US-10-285-394-292
; Sequence 292, Application US/10285394
; Publication No. US20030228583A1
; GENERAL INFORMATION:
  APPLICANT: AMACHER, DAVID E.
  APPLICANT: FASULO, LISA M.
  APPLICANT: HERATH, HERATH MUDIYANSELAGE ATHULA CHANDRASIRI
  APPLICANT: HOLT, GORDON DUANE
  APPLICANT: STIGER, THOMAS R.
  TITLE OF INVENTION: BIOMARKERS OF LIVER RESPONSE
  FILE REFERENCE: POA-003.01
  CURRENT APPLICATION NUMBER: US/10/285,394
  CURRENT FILING DATE: 2003-02-07
  PRIOR APPLICATION NUMBER: 60/335,964
; PRIOR FILING DATE: 2001-10-31
; NUMBER OF SEQ ID NOS: 412
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 292
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Homo sapiens
US-10-285-394-292
  Query Match
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 Best Local Similarity 100.0%; Pred. No. 8.1e+03;
 Matches
           3; Conservative 0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0:
            4 EKP 6
Qy
              \mathbf{H}
           8 EKP 10
Db
RESULT 53
US-10-264-309-93
; Sequence 93, Application US/10264309
; Publication No. US20040022794A1
; GENERAL INFORMATION:
; APPLICANT: DURHAM, L. KATHRYN
; APPLICANT: FRIEDMAN, DAVID L.
```

```
APPLICANT: HERATH, HERATH
; APPLICANT: KIMMEL, LIDA H.
  APPLICANT: PAREKH, RAJESH B.
  APPLICANT: POTTER, DAVID M.
  APPLICANT: ROHLFF, CHRISTIAN
   APPLICANT: SILBER, B. MICHAEL
   APPLICANT: SNYDER, PETER J.
   APPLICANT: SOARES, HOLLY D.
   APPLICANT: STIGER, THOMAS R.
   APPLICANT: SUNDERLAND, P. TREY
  APPLICANT: TOWNSEND, ROBERT R.
  APPLICANT: WHITE, W. FROST
  APPLICANT: WILLIAMS, STEPHEN A.
   TITLE OF INVENTION: NUCLEIC ACID MOLECULES, POLYPEPTIDES AND USES THEREFOR,
   TITLE OF INVENTION: INCLUDING DIAGNOSIS AND TREATMENT OF ALZHEIMER'S DISEASE
  FILE REFERENCE: POA-002.01
  CURRENT APPLICATION NUMBER: US/10/264,309
  CURRENT FILING DATE: 2002-10-03
  PRIOR APPLICATION NUMBER: 60/326,708
; PRIOR FILING DATE: 2001-10-03
 NUMBER OF SEQ ID NOS: 491
  SOFTWARE: PatentIn Version 2.1
; SEQ ID NO 93
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Homo sapiens
US-10-264-309-93
  Query Match
                         27.3%; Score 3; DB 16; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.1e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
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           4 EKP 6
Qу
             -111
Dh
           1 EKP 3
RESULT 54
US-08-859-699-10
; Sequence 10, Application US/08859699A
; Publication No. US20010007017A1
; GENERAL INFORMATION:
; APPLICANT: VELJKOVIC, Veljko
 APPLICANT: METLAS, Radmila
  TITLE OF INVENTION: PEPTIDES WHICH REACT WITH ANTIBODY REPRESENTING THE
  TITLE OF INVENTION: PROGNOSTIC MARKER FOR HIV DISEASE PROGRESSION
  FILE REFERENCE: VELJKOVIC et al. 08/859,699
  CURRENT APPLICATION NUMBER: US/08/859,699A
  CURRENT FILING DATE: 1997-05-21
  EARLIER APPLICATION NUMBER: GB 9610673.7
  EARLIER FILING DATE: 1996-05-22
  EARLIER APPLICATION NUMBER: GB 9623340.8
; EARLIER FILING DATE: 1996-11-08
; NUMBER OF SEQ ID NOS: 26
 SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 10
; LENGTH: 11
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TYPE: PRT
;
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Derivative of
    OTHER INFORMATION: NTM peptide.
US-08-859-699-10
  Query Match
                         18.2%; Score 2; DB 8; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.3e+04;
           2; Conservative 0; Mismatches
 Matches
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                                                                0; Gaps
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            3 KE 4
Qу
             | | |
Db
           7 KE 8
RESULT 55
US-08-450-842-45
; Sequence 45, Application US/08450842
; Publication No. US20020045576A1
  GENERAL INFORMATION:
    APPLICANT: GENENTECH, INC.
    APPLICANT: ROSENTHAL, ARNON
    TITLE OF INVENTION: NOVEL NEUROTROPHIC FACTOR
    NUMBER OF SEQUENCES: 100
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Genentech, Inc.
      STREET: 460 Point San Bruno Blvd
      CITY: South San Francisco
      STATE: California
      COUNTRY: USA
      ZIP: 94080
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: patin (Genentech)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/450,842
      FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/426419
      FILING DATE: 19-APR-1995
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/030013
      FILING DATE: 22-MAR-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/648482
      FILING DATE: 31-JAN
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/587707
      FILING DATE: 1991
    ATTORNEY/AGENT INFORMATION:
      NAME: Torchia, Timothy E.
      REGISTRATION NUMBER: 36,700
      REFERENCE/DOCKET NUMBER: 666P2C1D3
```

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TELECOMMUNICATION INFORMATION:
       TELEPHONE: 415/225-8674
       TELEFAX: 415/952-9881
      TELEX: 910/371-7168
   INFORMATION FOR SEQ ID NO: 45:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-08-450-842-45
  Query Match
                         18.2%; Score 2; DB 8; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.3e+04;
 Matches 2; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
           1 AK 2
Qу
             1 1
          10 AK 11
Db
RESULT 56
US-08-891-525-2
; Sequence 2, Application US/08891525
; Publication No. US20020081643A1
  GENERAL INFORMATION:
    APPLICANT: Wang, Xiaodong
    APPLICANT: Liu, Xuesong
    TITLE OF INVENTION: Regulation of Apoptosis and In Vitro
    TITLE OF INVENTION: Model for Studies Thereof
    NUMBER OF SEQUENCES: 7
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Greenlee, Winner and Sullivan, P.C.
      STREET: 5370 Manhattan Circle, Suite 201
      CITY: Boulder
      STATE: Colorado
      COUNTRY: US
      ZIP: 80303
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/891,525
      FILING DATE: 11-JUL-1997
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 60/021,268
      FILING DATE: 12-JUL-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Ferber, Donna M.
      REGISTRATION NUMBER: 33,878
      REFERENCE/DOCKET NUMBER: 45-96
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (303) 499-8080
      TELEFAX: (303) 499-8089
  INFORMATION FOR SEQ ID NO: 2:
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SEQUENCE CHARACTERISTICS:
;
       LENGTH: 11 amino acids
;
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: not relevant
     MOLECULE TYPE: peptide
     HYPOTHETICAL: NO
     FRAGMENT TYPE: internal
US-08-891-525-2
  Query Match
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  Best Local Similarity
                        100.0%; Pred. No. 7.3e+04;
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            6 PN 7
Qy
              \mathbf{I}
Db
            3 PN 4
RESULT 57
US-08-452-843A-15
; Sequence 15, Application US/08452843A
; Publication No. US20020098197A1
; GENERAL INFORMATION:
  APPLICANT: Sette, Alessandro
  APPLICANT: Sidney, John
  TITLE OF INVENTION: HLA Binding Peptides and Their Uses
  FILE REFERENCE: 399632001321
  CURRENT APPLICATION NUMBER: US/08/452,843A
  CURRENT FILING DATE: 1995-05-03
  PRIOR APPLICATION NUMBER: US 08/344,824
  PRIOR FILING DATE: 1994-11-23
  PRIOR APPLICATION NUMBER: US 08/278,634
  PRIOR FILING DATE: 1994-07-21
  NUMBER OF SEQ ID NOS: 30
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: p53, 127-137
US-08-452-843A-15
  Query Match
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  Best Local Similarity
                         100.0%; Pred. No. 7.3e+04;
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            2; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
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            7 NK 8
Qу
             Db
            5 NK 6
RESULT 58
US-08-841-636A-28
; Sequence 28, Application US/08841636A
; Publication No. US20020168751A1
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```
GENERAL INFORMATION:
 APPLICANT: Miettinen-Oinonen, Arja
 APPLICANT: Londesborough, John
 APPLICANT: Vehmaanper , Jari
 APPLICANT: Haakana, Heli
 APPLICANT: M ntyl , Arja
 APPLICANT: Lantto, Raija
 APPLICANT: Elovainio, Minna
 APPLICANT: Joutsjoki, Vesa
 APPLICANT: Paloheimo, Marja
 APPLICANT: Suominen, Pirkko
 TITLE OF INVENTION: NOVEL CELLULASES, THE GENES ENCODING THEM AND
 TITLE OF INVENTION: USES THEREOF
 NUMBER OF SEQUENCES: 45
 CORRESPONDENCE ADDRESS:
   ADDRESSEE: Sterne, Kessler, Goldstein & Fox P.L.L.C.
    STREET: 1100 New York Avenue, N.W., Suite 600
   CITY: Washington
   STATE: D.C.
   COUNTRY: USA
   ZIP: 20005
 COMPUTER READABLE FORM:
   MEDIUM TYPE: Diskette, 3.50 inch
   COMPUTER: IBM PC compatible
   OPERATING SYSTEM: PC-DOS/MS-DOS
   SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
 CURRENT APPLICATION DATA:
   APPLICATION NUMBER: US/08/841,636A
   FILING DATE: 30-APR-1997
   CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 60/005,335
   FILING DATE: 17-OCT-1995
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 60/007,926
    FILING DATE: 04-DEC-1995
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 60/020,840
   FILING DATE: 28-JUN-1996
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 08/732,181
   FILING DATE: 16-OCT-1996
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: PCT/FI96/00550
   FILING DATE: 17-OCT-1996
 ATTORNEY/AGENT INFORMATION:
   NAME: Timothy J. Shea, Jr.
   REGISTRATION NUMBER: 41,306
   REFERENCE/DOCKET NUMBER: 1716.0510005/MAC/TJS
 TELECOMMUNICATION INFORMATION:
   TELEPHONE: (202) 371-2600
   TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO:
 SEQUENCE CHARACTERISTICS:
   LENGTH: 11 amino acids
   TYPE: amino acid
   STRANDEDNESS:
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TOPOLOGY: linear
     MOLECULE TYPE: peptide
     ORIGINAL SOURCE:
       ORGANISM: Melanocarpus albomyces
       STRAIN: ALKO4237
     FEATURE:
       NAME/KEY: Peptide
       LOCATION: 1..11
       OTHER INFORMATION: /label= No. US20020168751A1632
US-08-841-636A-28
  Query Match
                          18.2%; Score 2; DB 8; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.3e+04;
           2; Conservative 0; Mismatches 0; Indels
  Matches
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            7 NK 8
Qу
              11
          10 NK 11
Db
RESULT 59
US-08-464-363-27
; Sequence 27, Application US/08464363
; Publication No. US20030035815A1
  GENERAL INFORMATION:
    APPLICANT: Rogers, Bruce L.
    APPLICANT: Morgenstern, Jay
    APPLICANT: Bond, Julian F.
    APPLICANT: Garman, Richard D.
    APPLICANT: Greenstein, Julia L.
    APPLICANT: Kuo, Mei-chang
APPLICANT: Morvile, Malcolm
    TITLE OF INVENTION: RECOMBITOPE PEPTIDES
    NUMBER OF SEQUENCES: 76
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Lahive & Cockfield
      STREET: 60 State Street, Suite 510
      CITY: Boston
      STATE: MA
      COUNTRY: USA
      ZIP: 02109
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: ASCII TEXT
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/464,363
      FILING DATE: 05-JUN-1995
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/807,529
      FILING DATE: 13-DEC-1991
      APPLICATION NUMBER: US 07/662,276
      FILING DATE: 28-FEB-1991
      APPLICATION NUMBER: US 07/431,565
      FILING DATE: 03-NOV-1989
    ATTORNEY/AGENT INFORMATION:
```

```
NAME: Amy E. Mandragouras
       REGISTRATION NUMBER: 36,207
       REFERENCE/DOCKET NUMBER: IMI-015CN
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (617) 227-7400
   INFORMATION FOR SEQ ID NO: 27:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
      TYPE: amino acid
       TOPOLOGY: linear
     MOLECULE TYPE: protein
US-08-464-363-27
  Query Match
                         18.2%; Score 2; DB 8; Length 11;
                         100.0%; Pred. No. 7.3e+04;
  Best Local Similarity
  Matches
           2; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
Qу
           3 KE 4
             11
Db
           4 KE 5
RESULT 60
US-08-344-824-44
; Sequence 44, Application US/08344824
; Publication No. US20030152580A1
  GENERAL INFORMATION:
    APPLICANT: SETTE, Alessandro
     APPLICANT: SIDNEY, John
     TITLE OF INVENTION: HLA BINDING PEPTIDES AND THEIR USES
    NUMBER OF SEQUENCES: 399
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Townsend and Townsend Khourie and Crew
       STREET: One Market Plaza, Steuart Street Tower, 20th
      STREET: Floor
      CITY: San Francisco
       STATE: California
      COUNTRY: USA
      ZIP: 94105
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/344,824
      FILING DATE: 23-NOV-1994
      CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/278,634
      FILING DATE: 21-JUL-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Bastian, Kevin L.
      REGISTRATION NUMBER: 34,774
      REFERENCE/DOCKET NUMBER: 14137-80-1
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 543-9600
```

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TELEFAX: (415) 543-5043
  INFORMATION FOR SEQ ID NO: 44:
    SEQUENCE CHARACTERISTICS:
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      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: DNA (genomic)
US-08-344-824-44
                         18.2%; Score 2; DB 8; Length 11;
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          2; Conservative 0; Mismatches
 Matches
                                                0; Indels
                                                                 0; Gaps
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           3 KE 4
Qу
             \Box
           4 KE 5
Db
RESULT 61
US-09-113-924-21
; Sequence 21, Application US/09113924
; Patent No. US20010007019A1
; GENERAL INFORMATION:
    APPLICANT: Brigstock, David R.
    APPLICANT: Harding, Paul H.
TITLE OF INVENTION: HEPARIN BINDING GROWTH FACTOR (HBGF)
    TITLE OF INVENTION: POLYPEPTIDES
    NUMBER OF SEQUENCES: 22
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Fish & Richardson P.C.
      STREET: 4225 Executive Square, Suite 1400
      CITY: La Jolla
      STATE: CA
      COUNTRY: USA
      ZIP: 92037
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: Windows 95
      SOFTWARE: FastSEQ for Windows Version 2.0b
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/113,924
      FILING DATE:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/908,526
      FILING DATE: 07-AUG-1997
    ATTORNEY/AGENT INFORMATION:
      NAME: Haile, Lisa A., Ph.D.
      REGISTRATION NUMBER: 38,347
      REFERENCE/DOCKET NUMBER: 08766/003001
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 619/678-5070
      TELEFAX: 619/678-5099
  INFORMATION FOR SEQ ID NO: 21:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
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TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-113-924-21
  Query Match
                         18.2%; Score 2; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.3e+04;
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          10 ND 11
Qу
             Db
           4 ND 5
RESULT 62
US-09-341-643-1
; Sequence 1, Application US/09341643
; Patent No. US20010007020A1
; GENERAL INFORMATION:
; APPLICANT: GERL, MARTIN
  TITLE OF INVENTION: ANTIBODIES THAT BIND TO THE NIDOGEN-BINDING DOMAIN OF
  TITLE OF INVENTION: LAMININ, THEIR PRODUCTION AND USE
  FILE REFERENCE: 02481.1626-00000
  CURRENT APPLICATION NUMBER: US/09/341,643
  CURRENT FILING DATE: 1999-07-15
  EARLIER APPLICATION NUMBER: PCT/EP97/07241
  EARLIER FILING DATE: 1997-12-22
 NUMBER OF SEQ ID NOS: 2
  SOFTWARE: PatentIn Ver. 2.0
; SEO ID NO 1
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-341-643-1
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           6 PN 7
Qу
             11
           5 PN 6
Db
RESULT 63
US-09-778-231-1
; Sequence 1, Application US/09778231
; Patent No. US20010018188A1
; GENERAL INFORMATION:
  APPLICANT: Gao, Heau-Shan
; APPLICANT: Chang, I-Nan
; APPLICANT: Wu, Tzong-Zeng
; APPLICANT: Liao, Ya-Ling
; APPLICANT: Hsiung, Sung-Sheng
; TITLE OF INVENTION: Method for Detection of Trimethylamine
; FILE REFERENCE: LEEL-1-16811
  CURRENT APPLICATION NUMBER: US/09/778,231
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TYPE: amino acid

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; CURRENT FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: R.O.C. 86117774
; PRIOR FILING DATE: 1997-11-26
; PRIOR APPLICATION NUMBER: 09/143,708
; PRIOR FILING DATE: 1998-08-28
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn Ver. 2.0
; SEO ID NO 1
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   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-778-231-1
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                                                                 0; Gaps
                                                                             0;
           3 KE 4
Qу
             11
          10 KE 11
RESULT 64
US-09-729-402-3
; Sequence 3, Application US/09729402
; Patent No. US20010021379A1
   GENERAL INFORMATION:
        APPLICANT: Cousens, Lawrence S.
                   Eberhardt, Christine D.
                   Gray, Patrick W.
                   Le Trong, Hai
                   Tjoelker, Larry W.
                   Wilder, Cheryl L.
        TITLE OF INVENTION: Platelet-Activating Factor
                            Acetylhydrolase
        NUMBER OF SEQUENCES: 30
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
             STREET: 6300 Sears Tower, 233 South Wacker Drive
             CITY: Chicago
             STATE: Illinois
             COUNTRY: United States of America
             ZIP: 60606-6402
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.25
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/729,402
             FILING DATE: 04-Dec-2000
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US 08/318,905
             FILING DATE: 06-OCT-1994
             APPLICATION NUMBER: US 08/133,803
             FILING DATE: 06-OCT-1993
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ATTORNEY/AGENT INFORMATION:
              NAME: No. US20010021379Aland, Greta E.
              REGISTRATION NUMBER: 35,302
              REFERENCE/DOCKET NUMBER: 27866/32793
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (312) 474-6300
              TELEFAX: (312) 474-0448
              TELEX: 25-3658
    INFORMATION FOR SEQ ID NO: 3:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-729-402-3
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Qу
             \Pi
           2 KP 3
RESULT 65
US-09-827-949-21
; Sequence 21, Application US/09827949
; Patent No. US20010021505A1
; GENERAL INFORMATION:
; APPLICANT: Morris, Stephan W.
 APPLICANT: Look, A. Thomas
  TITLE OF INVENTION: ALK Protein Tyrosine Kinase/Receptor and Ligands Thereof
  FILE REFERENCE: 0656.0400004
  CURRENT APPLICATION NUMBER: US/09/827,949
  CURRENT FILING DATE: 2001-04-09
; PRIOR APPLICATION NUMBER: US 09/670,827
  PRIOR FILING DATE: 2000-09-28
  PRIOR APPLICATION NUMBER: US 09/100,089
  PRIOR FILING DATE: 1998-06-19
 PRIOR APPLICATION NUMBER: US 08/542,363
  PRIOR FILING DATE: 1995-10-12
  PRIOR APPLICATION NUMBER: US 08/160,861
  PRIOR FILING DATE: 1993-12-03
  NUMBER OF SEQ ID NOS: 43
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 21
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-827-949-21
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3 KE 4
Qу
              II
           10 KE 11
Db
RESULT 66
US-09-802-077-14
; Sequence 14, Application US/09802077
; Patent No. US20010033842A1
; GENERAL INFORMATION:
  APPLICANT: Jardieu, Paula M.
  APPLICANT: Presta, Leonard G.
  TITLE OF INVENTION: Method of Treating Allergic Disorders (as amended)
  FILE REFERENCE: P0718P2C2US
  CURRENT APPLICATION NUMBER: US/09/802,077
   CURRENT FILING DATE: 2001-03-08
   PRIOR APPLICATION NUMBER: US 08/405,617
  PRIOR FILING DATE: 1995-03-15
   PRIOR APPLICATION NUMBER: US 08/185,899
   PRIOR FILING DATE: 1994-01-26
   PRIOR APPLICATION NUMBER: PCT/US92/06860
  PRIOR FILING DATE: 1992-08-14
  PRIOR APPLICATION NUMBER: US 07/879,495
  PRIOR FILING DATE: 1992-05-07
  PRIOR APPLICATION NUMBER: US 07/744,768
  PRIOR FILING DATE: 1991-08-14
  NUMBER OF SEQ ID NOS: 64
; SEQ ID NO 14
   LENGTH: 11
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    ORGANISM: Homo sapiens
US-09-802-077-14 \
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Qу
              \perp
Db
            6 KP 7
RESULT 67
US-09-802-077-15
; Sequence 15, Application US/09802077
; Patent No. US20010033842A1
; GENERAL INFORMATION:
  APPLICANT: Jardieu, Paula M.
  APPLICANT: Presta, Leonard G.
   TITLE OF INVENTION: Method of Treating Allergic Disorders (as amended)
  FILE REFERENCE: P0718P2C2US
  CURRENT APPLICATION NUMBER: US/09/802,077
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: US 08/405,617
  PRIOR FILING DATE: 1995-03-15
  PRIOR APPLICATION NUMBER: US 08/185,899
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PRIOR FILING DATE: 1994-01-26

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PRIOR APPLICATION NUMBER: PCT/US92/06860
  PRIOR FILING DATE: 1992-08-14
  PRIOR APPLICATION NUMBER: US 07/879,495
; PRIOR FILING DATE: 1992-05-07
; PRIOR APPLICATION NUMBER: US 07/744,768
  PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
; SEQ ID NO 15
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    ORGANISM: Homo sapiens
US-09-802-077-15
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                                                               0; Gaps
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            1 AK 2
Qу
              \mathbf{H}
Db
           10 AK 11
RESULT 68
US-09-802-077-33
; Sequence 33, Application US/09802077
; Patent No. US20010033842A1
; GENERAL INFORMATION:
; APPLICANT: Jardieu, Paula M.
; APPLICANT: Presta, Leonard G.
  TITLE OF INVENTION: Method of Treating Allergic Disorders (as amended)
; FILE REFERENCE: P0718P2C2US
; CURRENT APPLICATION NUMBER: US/09/802,077
  CURRENT FILING DATE: 2001-03-08
   PRIOR APPLICATION NUMBER: US 08/405,617
   PRIOR FILING DATE: 1995-03-15
  PRIOR APPLICATION NUMBER: US 08/185,899
;
   PRIOR FILING DATE: 1994-01-26
   PRIOR APPLICATION NUMBER: PCT/US92/06860
   PRIOR FILING DATE: 1992-08-14
  PRIOR APPLICATION NUMBER: US 07/879,495
  PRIOR FILING DATE: 1992-05-07
  PRIOR APPLICATION NUMBER: US 07/744,768
  PRIOR FILING DATE: 1991-08-14
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US-09-802-077-33
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           5 KP 6
Qγ
              \perp
Db
           6 KP 7
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RESULT 69
US-09-802-077-34
; Sequence 34, Application US/09802077
; Patent No. US20010033842A1
; GENERAL INFORMATION:
  APPLICANT: Jardieu, Paula M.
   APPLICANT: Presta, Leonard G.
   TITLE OF INVENTION: Method of Treating Allergic Disorders (as amended)
  FILE REFERENCE: P0718P2C2US
   CURRENT APPLICATION NUMBER: US/09/802,077
   CURRENT FILING DATE: 2001-03-08
   PRIOR APPLICATION NUMBER: US 08/405,617
  PRIOR FILING DATE: 1995-03-15
  PRIOR APPLICATION NUMBER: US 08/185,899
   PRIOR FILING DATE: 1994-01-26
   PRIOR APPLICATION NUMBER: PCT/US92/06860
   PRIOR FILING DATE: 1992-08-14
   PRIOR APPLICATION NUMBER: US 07/879,495
   PRIOR FILING DATE: 1992-05-07
   PRIOR APPLICATION NUMBER: US 07/744,768
   PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
; SEQ ID NO 34
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US-09-802-077-34
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                         100.0%; Pred. No. 7.3e+04;
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                                                      Indels
                                                                 0; Gaps
Qy
            1 AK 2
              \Pi
Db
           10 AK 11
RESULT 70
US-09-758-318-8
; Sequence 8, Application US/09758318
; Patent No. US20010034021A1
  GENERAL INFORMATION:
    APPLICANT: Muller, Martin
    APPLICANT: Gissmann, Lutz
    TITLE OF INVENTION: Seroreactive Regions on HPV 16 Proteins
    TITLE OF INVENTION: E1 and E2
    NUMBER OF SEQUENCES: 44
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I Street, N.W., Suite 700
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
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COMPUTER READABLE FORM:
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       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/09/758,318
       FILING DATE:
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 08/468,337
       FILING DATE:
     ATTORNEY/AGENT INFORMATION:
       NAME: Einaudi, Carol P.
       REGISTRATION NUMBER: 33,220
       REFERENCE/DOCKET NUMBER: 05552-1199-02000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-408-4000
       TELEFAX: 202-408-4400
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-09-758-318-8
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  Best Local Similarity 100.0%; Pred. No. 7.3e+04;
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          10 ND 11
Qу
              11
Db
            9 ND 10
RESULT 71
US-09-802-096-14
; Sequence 14, Application US/09802096
; Patent No. US20010038839A1
; GENERAL INFORMATION:
 APPLICANT: Jardieu, Paula M.
  APPLICANT: Presta, Leonard G.
  TITLE OF INVENTION: Method of Preventing the Onset of Allergic Disorders (as
amended)
  FILE REFERENCE: P0718P2C3US
  CURRENT APPLICATION NUMBER: US/09/802,096
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: US 08/405,617
  PRIOR FILING DATE: 1995-03-15
  PRIOR APPLICATION NUMBER: US 08/185,899
  PRIOR FILING DATE: 1994-01-26
  PRIOR APPLICATION NUMBER: PCT/US92/06860
  PRIOR FILING DATE: 1992-08-14
; PRIOR APPLICATION NUMBER: US 07/879,495
; PRIOR FILING DATE: 1992-05-07
  PRIOR APPLICATION NUMBER: US 07/744,768
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PRIOR FILING DATE: 1991-08-14
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Qу
           5 KP 6
              \perp
           6 KP 7
Db
RESULT 72
US-09-802-096-15
; Sequence 15, Application US/09802096
; Patent No. US20010038839A1
; GENERAL INFORMATION:
  APPLICANT: Jardieu, Paula M.
  APPLICANT: Presta, Leonard G.
  TITLE OF INVENTION: Method of Preventing the Onset of Allergic Disorders (as
amended)
  FILE REFERENCE: P0718P2C3US
  CURRENT APPLICATION NUMBER: US/09/802,096
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: US 08/405,617
  PRIOR FILING DATE: 1995-03-15
  PRIOR APPLICATION NUMBER: US 08/185,899
  PRIOR FILING DATE: 1994-01-26
  PRIOR APPLICATION NUMBER: PCT/US92/06860
  PRIOR FILING DATE: 1992-08-14
  PRIOR APPLICATION NUMBER: US 07/879,495
  PRIOR FILING DATE: 1992-05-07
  PRIOR APPLICATION NUMBER: US 07/744,768
  PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
; SEQ ID NO 15
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-802-096-15
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Qу
           1 AK 2
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          10 AK 11
RESULT 73
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US-09-802-096-33

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; Sequence 33, Application US/09802096
; Patent No. US20010038839A1
; GENERAL INFORMATION:
; APPLICANT: Jardieu, Paula M.
  APPLICANT: Presta, Leonard G.
  TITLE OF INVENTION: Method of Preventing the Onset of Allergic Disorders (as
amended)
   FILE REFERENCE: P0718P2C3US
  CURRENT APPLICATION NUMBER: US/09/802,096
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: US 08/405,617
  PRIOR FILING DATE: 1995-03-15
  PRIOR APPLICATION NUMBER: US 08/185,899
  PRIOR FILING DATE: 1994-01-26
  PRIOR APPLICATION NUMBER: PCT/US92/06860
  PRIOR FILING DATE: 1992-08-14
  PRIOR APPLICATION NUMBER: US 07/879,495
  PRIOR FILING DATE: 1992-05-07
  PRIOR APPLICATION NUMBER: US 07/744,768
  PRIOR FILING DATE: 1991-08-14
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   ORGANISM: Homo sapiens
US-09-802-096-33
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 Matches
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            5 KP 6
Qу
              \mathbf{H}
Db
            6 KP 7
RESULT 74
US-09-802-096-34
; Sequence 34, Application US/09802096
; Patent No. US20010038839A1
; GENERAL INFORMATION:
              Jardieu, Paula M.
  APPLICANT:
  APPLICANT: Presta, Leonard G.
  TITLE OF INVENTION: Method of Preventing the Onset of Allergic Disorders (as
amended)
  FILE REFERENCE: P0718P2C3US
  CURRENT APPLICATION NUMBER: US/09/802,096
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: US 08/405,617
  PRIOR FILING DATE: 1995-03-15
  PRIOR APPLICATION NUMBER: US 08/185,899
  PRIOR FILING DATE: 1994-01-26
  PRIOR APPLICATION NUMBER: PCT/US92/06860
  PRIOR FILING DATE:
                      1992-08-14
  PRIOR APPLICATION NUMBER: US 07/879,495
  PRIOR FILING DATE: 1992-05-07
  PRIOR APPLICATION NUMBER: US 07/744,768
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PRIOR FILING DATE: 1991-08-14
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    ORGANISM: Homo sapiens
US-09-802-096-34
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  Best Local Similarity
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            2; Conservative
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            1 AK 2
Qy
              \mathbf{I}
           10 AK 11
Db
RESULT 75
US-09-850-373-1
; Sequence 1, Application US/09850373
; Patent No. US20010051605A1
; GENERAL INFORMATION:
  APPLICANT: Strayer, David S
   TITLE OF INVENTION: Epidermal Growth Factor Inhibitor
  FILE REFERENCE: JEFF-0226-DIV
  CURRENT APPLICATION NUMBER: US/09/850,373
   CURRENT FILING DATE: 2001-05-07
  PRIOR APPLICATION NUMBER: 08/530,340
  PRIOR FILING DATE: 1995-12-22
  PRIOR APPLICATION NUMBER: PCT/US94/03675
   PRIOR FILING DATE: 1994-04-04
   PRIOR APPLICATION NUMBER: 08/041,774
  PRIOR FILING DATE: 1993-04-02
  NUMBER OF SEQ ID NOS: 7
   SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 1
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence: An epidermal
    OTHER INFORMATION: growth factor inhibitor peptide
US-09-850-373-1
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             2; Conservative 0; Mismatches
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  Matches
            4 EK 5
Qу
             11
            7 EK 8
Db
Search completed: April 8, 2004, 16:35:47
Job time : 30.3077 secs
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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 27.7692 Seconds

(without alignments)

124.984 Million cell updates/sec

Title: US-09-787-443A-17

Perfect score: 11

Sequence: 1 AKKEKPNKPND 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1017041 seqs, 315518202 residues

Word size :

Total number of hits satisfying chosen parameters: 460

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

SPTREMBL 25:* Database :

1: sp_archea:*

2: sp bacteria:*

3: sp_fungi:*

4: sp_human:*

5: sp_invertebrate:*

6: sp mammal:*

7: sp mhc:*

8: sp organelle:*

9: sp phage:*

10: sp_plant:*

11: sp_rodent:*
12: sp_virus:*

13: sp_vertebrate:*

14: sp unclassified:*

15: sp rvirus:*

16: sp bacteriap:*

17: sp archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

용 Result Query

No. Score Match Length DB ID Description

•	1	4 2		11 4	00114115	COLARE have and
	1 2			l1 4 l1 10	Q9H4H5 Q8RV30	Q9h4h5 homo sapien Q8rv30 zea mays (m
	3			l1 2	Q9AIY6	Q9aiy6 carsonella
	4			11 2	Q9R790	Q9r790 borrelia ga
	5			11 2	Q9K/90 Q9L4F7	Q914f7 bacillus ce
	6			11 2	Q47606	Q47606 escherichia
	7			11 2	Q47606 Q9R4B1	Q9r4b1 streptococc
	8			L1 2	Q9K4B1 Q9S618	Q9s618 prochloroco
	9			11 2	P96319	P96319 desulfovibr
	10			11 2	Q9EUZ3	Q9euz3 escherichia
	11			11 2	Q9E023 Q9K332	
	12			11 2	Q9R552 Q9RFZ2	Q9k332 staphylococ
	13			11 2	P95518	Q9rfz2 mycoplasma P95518 pasteurella
	14			11 2	Q47604	Q47604 escherichia
	15			11 2	Q47604 Q47420	Q47420 escherichia
	16			1 2	Q47420 Q44090	
	17			11 2	Q56413	Q44090 acholeplasm
	18			11 2		Q56413 escherichia Q9r446 neisseria q
	19			11 2	Q9R446	
	20			11 2	Q8GMU3 Q7X566	Q8gmu3 acinetobact Q7x566 thermus the
	21			11 3	Q9UR95	Q9ur95 pichia angu
	22			11 4	Q90R93 060761	-
	23			11 4	Q9UCP5	060761 homo sapien
	24			11 5	Q90CF5 Q9NL65	Q9ucp5 homo sapien
	25			11 5	Q9NL03 Q9TWX6	Q9n165 ascaris suu
	25 26			11 5	Q86D32	Q9twx6 manduca sex
	20 27			11 5		Q86d32 trypanosoma
	28			11 5	Q86D31 Q95PX6	Q86d31 trypanosoma
	29			11 6	Q93FX6 Q9TRW5	Q95px6 caenorhabdi
	30			11 7	077872	Q9trw5 bos taurus O77872 oreochromis
	31			1 7	077872	077873 oreochromis
	32			1 7	077871	077871 oreochromis
	33			11 9	Q38415	Q38415 bacteriopha
	34			1 9	Q37925	Q37925 bacteriopha
	35			11 10		065901 leavenworth
	36			1 10		Q39784 gossypium h
	37			1 10		Q04131 lycopersico
	38		and the second s	1 11		Q9jle6 rattus norv
	39			.1 11		Q8r2j7 mesocricetu
	40			1 13		Q9ps64 gallus gall
	41			1 13		Q90735 gallus gall
	42			1 13		Q8ax69 oreochromis
	43			1 13		Q8ax68 oreochromis
	44			.1 13		Q800x7 chelydra se
	45			1 13		Q7t285 geochelone
	46			.1 13		Q7t284 geochelone
	47			.1 13		Q7t283 geochelone
	48			1 13		Q7sx72 geochelone
	49			1 13		Q7sx71 geochelone
	50			1 15		Q9dz32 human immun
	51			1 16		 Q9k7a4 bacillus ha
	52			1 2	068237	068237 borrelia bu
	53			1 2	Q48933	Q48933 mycobacteri
	54			1 2	Q40955 Q47451	Q47451 escherichia
	55			.1 2	Q47431 Q9AIZ7	Q9aiz7 carsonella
	56			1 2	Q8RKN1	Q8rknl escherichia
	57			.1 2	Q52526	Q52526 rhizobium s
	5,	т.	√• ⊥ ⊥		222220	ZOZOZO THITZODIUM 2

58	1	9.1	11	2	Q8KHL0	Q8kh10	streptococc
59	1	9.1	11	2	Q47602		escherichia
60	1	9.1	11	2	Q8L2T4	Q812t4	neisseria m
61	1	9.1	11	2	Q9S623	Q9s623	prochloroco
62	1	9.1	11	2	Q9R5P3		serratia ma
63	1	9.1	11	2	P77404		escherichia
64	1	9.1	11	2	Q9RQ60	Q9rq60	buchnera ap
65	1	9.1	11	2	Q93RM6	Q93rm6	staphylococ
66	1	9.1	11	2	Q47600	Q47600	escherichia
67	1	9.1	11	2	Q8RMI8	Q8rmi8	enterococcu
68	1	9.1	11	2	087882		mycobacteri
69	1	9.1	11	2	Q8KTN1	Q8ktn1	candidatus
70	1	9.1	11	2	P71228	P71228	escherichia
71	1	9.1	11	2	Q93MI7	Q93mi7	escherichia
72	1	9.1	11	2	Q47345	Q47345	escherichia
73	1	9.1	11	2	Q9AIZ8	Q9aiz8	carsonella
74	1	9.1	11	2	Q8KRA1	Q8kral	streptococc
75	1	9.1	11	2	Q47059	Q47059	escherichia
76	1	9.1	11	2	Q44237	Q44237	anabaena sp
77	1	9.1	11	2	Q9R872	Q9r872	escherichia
78	1	9.1	11	2	Q56972		yersinia pe
79	1	9.1	11	2	Q91UY9	Q91uy9	escherichia
80	1	9.1	11	2	Q8GL24	Q8g124	borrelia bu
81	1	9.1	11	2	Q8GL19		borrelia bu
82	1	9.1	11	2	P83537		lactobacill
83	1	9.1	11	2	Q47567		escherichia
84	1	9.1	11	2	Q9X9S6	Q9 x 9s6	${\tt streptomyce}$
85	1	9.1	11	2	Q47569		escherichia
86	1	9.1	11	2	Q7WUL8		pseudomonas
87	1	9.1	11	3	042763		aspergillus
88	1	9.1	11	3	Q9HDR9		aspergillus
89	1	9.1	11	3	Q9HFN8		candida rug
90	1	9.1	11	3	043131		aspergillus
91	1	9.1	11	3	Q9HDR8		aspergillus
92	1	9.1	11	3	Q9URG1		neurospora
93	1	9.1	11	3	Q9HDS0		aspergillus
94	$_{,}1$	9.1	11	3	Q9HDR7		aspergillus
95	1	9.1	11	3	060005		aspergillus
96	1	9.1	11	3	060007		emericella
97	1	9.1	11	3	042762		aspergillus
98	1	9.1	11	3	043130		aspergillus
99	1	9.1	11	3	060192		aspergillus
100	1	9.1	11	3	Q9C1R7	Q9c1r7	saccharomyc

ALIGNMENTS

```
RESULT 1
Q9H4H5
ID
                 PRELIMINARY;
     Q9H4H5
                                   PRT;
                                           11 AA.
     Q9H4H5;
AC
DT
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT
     01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE
     DJ661I20.2 (Novel helicase C-terminal domain and SNF2 N-terminal
DE
     domains containing protein) (Fragment).
```

```
DJ620E11.1.
GN
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Skuce C.;
RA
     Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AL031669; CAC17164.2; -.
     NON TER
FT
                   1
                          1
     NON TER
                  11
                         11
FT
SQ
     SEQUENCE
                11 AA; 1420 MW;
                                   5EB2C32A3326D053 CRC64;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
                          100.0%; Pred. No. 1.1e+03;
  Best Local Similarity
  Matches
             4; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                               0;
            2 KKEK 5
Qу
              7 KKEK 10
Db
RESULT 2
08RV30
                 PRELIMINARY;
                                            11 AA.
ID
     08RV30
                                    PRT:
     08RV30;
AC.
     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Methionine adenosyltransferase 1-like protein (Fragment).
OS
     Zea mays (Maize).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC
     PACCAD clade; Panicoideae; Andropogoneae; Zea.
OX
     NCBI TaxID=4577;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=Various strains;
     Ching A.S., Caldwell K.S., Jung M., Dolan M., Smith O.S., Tingey S.,
RA
     Morgante M., Rafalski J.A.;
RA
RT
     "SNP frequency, haplotype structure and linkage disequilibrium in
     elite maize inbred lines.";
RT
RL
     Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
     EMBL; AF486085; AAL85893.1; -.
DR
     EMBL; AF486086; AAL85894.1; -.
DR
DR
     EMBL; AF486087; AAL85895.1; -.
     EMBL; AF486088; AAL85896.1; -.
DR
     EMBL; AF486089; AAL85897.1; -.
DR
     EMBL; AF486090; AAL85898.1; -.
DR
     EMBL; AF486091; AAL85899.1; -.
DR
DR
     EMBL; AF486092; AAL85900.1; -.
DR
     EMBL; AF486093; AAL85901.1; -.
DR
     EMBL; AF486094; AAL85902.1; -.
DR
     EMBL; AF486095; AAL85903.1; -.
     EMBL; AF486096; AAL85904.1; -.
DR
DR
     EMBL; AF486097; AAL85905.1; -.
```

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DR
     EMBL; AF486098; AAL85906.1; -.
     EMBL; AF486099; AAL85907.1; -.
DR.
DR
     EMBL; AF486100; AAL85908.1; -.
     EMBL; AF486101; AAL85909.1; -.
DR
     EMBL; AF486102; AAL85910.1; -.
DR
     EMBL; AF486104; AAL85911.1; -.
DR
DR
     EMBL; AF486105; AAL85912.1; -.
     EMBL; AF486106; AAL85913.1; -.
DR
     EMBL; AF486107; AAL85914.1; -.
DR
DR
     EMBL; AF486108; AAL85915.1; -.
DR
     EMBL; AF486109; AAL85916.1; -.
DR
     EMBL; AF486110; AAL85917.1; -.
DR
     EMBL; AF486111; AAL85918.1; -.
     EMBL; AF486112; AAL85919.1; -.
DR
DR
     EMBL; AF486113; AAL85920.1; -.
     EMBL; AF486114; AAL85921.1; -.
DR
     EMBL; AF486115; AAL85922.1; -.
DR
DR
     EMBL; AF486116; AAL85923.1; -.
DR
     EMBL; AF486117; AAL85924.1; -.
DR
     EMBL; AF486118; AAL85925.1; -.
DR
     GO; GO:0016740; F:transferase activity; IEA.
KW
     Transferase.
FT
     NON TER
                   1
                           1
SQ
     SEQUENCE
                        1183 MW; 448D42ED3B05B337 CRC64;
                11 AA;
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
  Matches
             3; Conservative
                                                    0;
                               0; Mismatches
                                                        Indels
                                                                   0;
                                                                       Gaps
                                                                                0;
            4 EKP 6
Qу
              IIII
            7 EKP 9
Db
RESULT 3
Q9AIY6
ID
     Q9AIY6
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9AIY6;
DT
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Tryptophanyl-tRNA synthetase (Fragment).
GN
     TRPS.
OS
     Carsonella ruddii.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Candidatus Carsonella.
OX
    NCBI TaxID=114186;
RN
RP
     SEQUENCE FROM N.A.
RX
    MEDLINE=20336438; PubMed=10877784;
RA
    Thao M.L., Moran N.A., Abbot P., Brennan E.B., Burckhardt D.H.,
RA
     Baumann P.;
RT
     "Cospeciation of psyllids and their primary prokaryotic
RT
     endosymbionts.";
RL
    Appl. Environ. Microbiol. 66:2898-2905(2000).
RN
     [2]
RP
     SEQUENCE FROM N.A.
    MEDLINE=21125546; PubMed=11222582;
RX
```

```
Clark M.A., Baumann L., Thao M.L., Moran N.A., Baumann P.;
RA
     "Degenerative Minimalism in the Genome of a Psyllid Endosymbiont.";
RТ
     J. Bacteriol. 183:1853-1861(2001).
RL
DR
     EMBL; AF211138; AAK15388.1; -.
     GO; GO:0004812; F:tRNA ligase activity; IEA.
DR
KW
     Aminoacyl-tRNA synthetase.
     NON TER
FT
                   1
     SEQUENCE
                11 AA;
                        1295 MW; 0CA993A5345B5720 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2;
                                                   Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
            2; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            7 NK 8
Qу
              | | |
            7 NK 8
Db
RESULT 4
09R790
                                           11 AA.
     09R790
                 PRELIMINARY;
                                   PRT;
TD
AC
     Q9R790;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Outer surface protein C (Fragment).
DE
GN
     OSPC.
OS
     Borrelia garinii.
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
OX
     NCBI TaxID=29519;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=G25;
RX
     MEDLINE=97426044; PubMed=9282748;
RA
     Tilly K., Casjens S., Stevenson B., Bono J.L., Samuels D.S., Hogan D.,
RA
RT
     "he Borrelia burgdorferi circular plasmid cp26: conservation of
     plasmid structure and targeted inactivation of the ospC gene.";
RT
RL
     Mol. Microbiol. 25:361-374(1997).
     EMBL; U93700; AAC45535.1; -.
DR
DR
     GO; GO:0009279; C:external outer membrane (sensu Gram-negativ. . .; IEA.
DR
     GO; GO:0003793; F:defense/immunity protein activity; IEA.
DR
     GO; GO:0006952; P:defense response; IEA.
     InterPro; IPR001800; Lipoprotein 6.
DR
     Pfam; PF01441; Lipoprotein 6; 1.
DR
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
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  Best Local Similarity
             2; Conservative 0; Mismatches 0;
  Matches
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            2 KK 3
Qу
              Db
            2 KK 3
```

```
RESULT 5
Q9L4F7
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q9L4F7
AC
     Q9L4F7;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DT
     Phosphatidylinositol-specific phospholipase C (PI-PLC)
DE
DE
     (Fragment).
GN
     PLCA.
OS
     Bacillus cereus.
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
OX
     NCBI TaxID=1396;
RN
     [1]
RP
     SEOUENCE FROM N.A.
     STRAIN=ATCC 14579 type strain;
RC.
     MEDLINE=20055637; PubMed=10589720;
RX
     Okstad O., Gominet M., Purnelle B., Rose M., Lereclus D., Kolsto A.B.;
RA
     "Sequence analysis of three Bacillus cereus loci under PIcR-regulated
RT
     genes encoding degradative enzymes and enterotoxin.";
RT
     Microbiology 145:3129-3138(1999).
RL
DR
     EMBL; AJ243711; CAB69804.1; -.
     NON TER
                          11
FT
                  11
                                   4277A30E20572333 CRC64;
     SEQUENCE
                11 AA; 1335 MW;
SQ
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
            2; Conservative
                                  0: Mismatches
                                                    0;
                                                        Indels
                                                                       Gaps
                                                                                0;
  Matches
            7 NK 8
Qу
              11
            3 NK 4
Dh
RESULT 6
Q47606
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
     Q47606
ID
AC
     Q47606;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     REase protein (Fragment).
DE
GN
     REASE.
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
OX
     NCBI TaxID=562;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=91139577; PubMed=1995588;
RX
     Tao T., Bourne J.C., Blumenthal R.M.;
RA
     "A family of regulatory genes associated with type II restriction-
RT
     modification systems.";
RT
     J. Bacteriol. 173:1367-1375(1991).
RL
     EMBL; M63622; AAA24562.1; -.
DR
     NON TER
                  11
                          11
FT
                         1370 MW; 68C1FF9959CB133B CRC64;
     SEQUENCE
                11 AA;
SQ
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18.2%; Score 2; DB 2; Length 11;
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                                                                                0;
             2; Conservative
                                                  0; Indels
                                                                   0; Gaps
 Matches
                               0; Mismatches
            4 EK 5
Qу
              \mathbf{H}
            4 EK 5
Db
RESULT 7
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                 PRELIMINARY;
                                    PRT:
                                            11 AA.
ID
     Q9R4B1
AC
     09R4B1;
     01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     BX protein (Fragment).
DΕ
     Streptococcus pyogenes.
OS
     Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC
OC
     Streptococcus.
     NCBI_TaxID=1314;
OX
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=95252678; PubMed=7734831;
RX
     Gerlach D., Gunther E., Kohler W., Vettermann S., Fleischer B.,
     Schmidt K.H.;
RA
     "Isolation and characterization of a mitogen characteristic of group A
RT
     streptococci (Streptococcus pyogenes).";
RT
     Int. J. Med. Microbiol. Virol. Parasitol. Infect. Dis. 282:67-
RL
RL
     82 (1995).
     SEQUENCE 11 AA; 1216 MW; CE527287CAA455A2 CRC64;
SO
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  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
             2; Conservative 0; Mismatches 0; Indels
                                                                   0; Gaps
                                                                                0;
  Matches
           10 ND 11
Qу
              \mathbf{H}
            6 ND 7
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098618
                 PRELIMINARY;
                                    PRT;
                                             11 AA.
ID
     098618
AC
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     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Cytochrome b6/f complex subunit IV (Fragment).
DΕ
GN
     PETD.
OS
     Prochlorococcus sp.
     Bacteria; Cyanobacteria; Prochlorophytes; Prochlorococcaceae;
OC
OC
     Prochlorococcus.
OX
     NCBI TaxID=1220;
RN
     [1]
RP.
     SEQUENCE FROM N.A.
```

```
Urbach E., Chisholm S.W.;
RA
     "Genetic diversity in Prochlorococcus populations flow cytometrically
RT
     sorted from the Sargasso Sea and Gulf Stream.";
RT
     Limnol. Oceanog. 43:1615-1630(1998).
RL
     EMBL; AF070132; AAD20740.1; -.
DR
    NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA;
                        1297 MW;
                                  5CC38013B7633337 CRC64;
SQ
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  Query Match
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  Best Local Similarity
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                                                    0; Indels
                                                                      Gaps
                                                                               0;
 Matches
             2; Conservative
            2 KK 3
Qv
              \mathbf{I}
Db
            5 KK 6
RESULT 9
P96319
                                   PRT:
                                            11 AA.
ID
     P96319
                 PRELIMINARY;
AC
     P96319;
     01-MAY-1997 (TrEMBLrel. 03, Created)
     01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DT
     Coded portion of proteolysis tag (Fragment).
DΕ
OS
     Desulfovibrio desulfuricans.
     Bacteria; Proteobacteria; Deltaproteobacteria; Desulfovibrionales;
OC
     Desulfovibrionaceae; Desulfovibrio.
OC
     NCBI TaxID=876;
OX
RN
     [1]
RΡ
     SEQUENCE FROM N.A.
     STRAIN=ATCC 27774;
RC
     MEDLINE=97128184; PubMed=8972778;
RX
     Williams K.P., Bartel D.P.;
RA
     "Phylogenetic analysis of tmRNA secondary structure.";
RT
     RNA 2:1306-1310(1996).
RL
     EMBL; U68081; AAB48023.1; -.
DR
     NON TER
FT
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                          1
     SEQUENCE
                       1250 MW; 85776D58CB5ABB5A CRC64;
SQ
                11 AA;
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                0; Mismatches
                                                 0; Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
  Matches
             2; Conservative
           10 ND 11
Qу
              \prod
            3 ND 4
RESULT 10
Q9EUZ3
ID
     Q9EUZ3
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9EUZ3;
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DT
     Ribosome binding factor A (Fragment).
DE
```

```
RBFA.
GN
OS Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=IQ490;
RC
RA
     Hedegaard J., Kristensen J.E., Nakamura Y., Sperling-Petersen H.U.,
RA
     Mortensen K.K.;
     "Sequence of the infB gene from Escherichia coli strain IQ489 and
RT
RT
     IQ490.";
RL
     Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AJ132862; CAC20133.1; -.
FT
     NON TER
                  11
                         11
                11 AA; 1319 MW; 6B234CFE740879CB CRC64;
SQ
     SEQUENCE
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                                   0; Indels
                                                                              0;
  Matches
             2; Conservative
                                0; Mismatches
                                                                  0; Gaps
Qу
            1 AK 2
              \Pi
Db
            2 AK 3
RESULT 11
Q9K332
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     Q9K332
AC
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DT
DE
     Geh (Fragment).
GN
     GEH.
OS
     Staphylococcus aureus.
     Bacteria; Firmicutes; Bacillales; Staphylococcus.
OC
OX
     NCBI TaxID=1280;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=VARIOUS STRAINS;
RC
     MEDLINE=20187516; PubMed=10722640;
RX
     Cramton S.E., Schnell N.F., Gotz F., Bruckner R.;
RA
     "Identification of a new repetitive element in Staphylococcus
RT
RT
     aureus.";
     Infect. Immun. 68:2344-2348(2000).
RL
     EMBL; AF195967; AAF60251.1; -.
DR
     EMBL; AF195963; AAF60243.1; -.
DR
     EMBL; AF195964; AAF60245.1; -.
DR
DR
     EMBL; AF195965; AAF60247.1; -.
DR
     EMBL; AF195966; AAF60249.1; -.
FT
     NON TER
                   1
                          1
SQ
     SEQUENCE
                11 AA; 1262 MW; 4F978F86AAB1A723 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                               0; Mismatches
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
"Isolation and characterization of the integration host factor genes
RT
     of Pasteurella haemolytica.";
RT
     FEMS Microbiol. Lett. 146:181-188(1997).
RL
     EMBL; U56139; AAC44845.1; -.
DR
     NON TER
                   1
FT
                          1
                11 AA; 1168 MW; 7A4BFD38D339CDDB CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 2; Length 11;
 Query Match
                          100.0%; Pred. No. 1.1e+05;
 Best Local Similarity
                              0; Mismatches
                                                                 0; Gaps
                                                                             0;
                                                  0; Indels
 Matches
            2; Conservative
            1 AK 2
Qу
              \perp
            8 AK 9
RESULT 14
047604
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     047604
AC
     Q47604;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     REase protein (Fragment).
GN
     REASE.
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=91139577; PubMed=1995588;
RX
     Tao T., Bourne J.C., Blumenthal R.M.;
RA
     "A family of regulatory genes associated with type II restriction-
RT
     modification systems.";
RT
     J. Bacteriol. 173:1367-1375(1991).
RL
     EMBL; M63621; AAA24560.1; -.
DR
     NON TER
                 11
                         11
FT
                11 AA; 1296 MW; 3039A71A34472AB7 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
            2; Conservative 0; Mismatches
                                                   0;
                                                      Indels
                                                                 0; Gaps
                                                                              0;
  Matches
            7 NK 8
Qу
              7 NK 8
Db
RESULT 15
Q47420
     Q47420
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
TD
     Q47420;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     ORF11 protein.
DE
```

```
Escherichia coli.
OS
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
    Enterobacteriaceae; Escherichia.
OC
    NCBI TaxID=562;
OX
     [1]
RN
     SEQUENCE FROM N.A.
RP
     STRAIN=K12;
RC
    MEDLINE=92041688; PubMed=1657895;
RX
     Sharples G.J., Lloyd R.G.;
RA
     "Resolution of Holliday junctions in Escherichia coli: Identification
RT
     of the ruvC gene product as a 19-Kilodalton protein.";
RT
    J. Bacteriol. 173:7711-7715(1991).
RL
    EMBL; X59551; CAA42127.1; -.
DR
     PIR; S19015; S19015.
DR
              11 AA; 1215 MW; DD8D6D4D56C6D33D CRC64;
SQ
     SEQUENCE
                          18.2%; Score 2; DB 2; Length 11;
 Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                              0; Mismatches
                                                                             0;
                                                   0; Indels
                                                                 0; Gaps
            2; Conservative
            1 AK 2
Qу
              4 AK 5
Db
RESULT 16
Q44090
                                   PRT;
                                           11 AA.
ID
    Q44.090
                 PRELIMINARY;
AC
     044090;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Hypothetical export segment (Fragment).
DE
     Acholeplasma laidlawii.
os
     Bacteria; Firmicutes; Mollicutes; Acholeplasmatales;
OC
     Acholeplasmataceae; Acholeplasma.
OC
OX
     NCBI TaxID=2148;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=A-EF22;
     Boyer M.J., Jarhede T.K., Tegman V., Wieslander A.;
RA
     "Sequence regions from Acholeplasma laidlawii which restore export of
RT
RT
     beta-lactamase in Escherichia coli.";
     Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; Z22875; CAA80495.1; -.
DR
     PIR; S33519; S33519.
DR
     NON TER
                  11
                         11
FT
                11 AA; 1234 MW; 5C9D2AE8A682C337 CRC64;
     SEQUENCE
SO
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                                                              0;
                                                                  0; Gaps
            2; Conservative
                                0; Mismatches
                                                   0; Indels
  Matches
            2 KK 3
Qу
              H
Db
            2 KK 3
```

```
RESULT 17
056413
                                            11 AA.
                                    PRT;
     Q56413
                 PRELIMINARY;
ID
AC
     Q56413;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DΤ
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     IS602L region DNA, 5' end (Fragment).
DE
     Escherichia coli.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     TRANSPOSON=Transposon Tn602;
RC
     MEDLINE=87318208; PubMed=2819910;
RX
     Stibitz S., Davies J.E.;
RA
     "Tn602: A naturally occurring relative of Tn903 with direct repeats.";
RT
     Plasmid 17:202-209(1987).
RL
     EMBL; M22735; AAA27464.1; -.
DR
     NON TER
                           1
FT
                   1
     NON TER
                          11
                  11
FT
                11 AA;
                        1361 MW; 447E8354A05339C3 CRC64;
SO
     SEQUENCE
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                                    Pred. No. 1.1e+05;
                           100.0%;
  Best Local Similarity
                                                                                0;
                                  0; Mismatches
                                                    0;
                                                         Indels
                                                                   0:
                                                                       Gaps
             2; Conservative
            1 AK 2
Qу
              11
            1 AK 2
Db
RESULT 18
Q9R446
                  PRELIMINARY;
                                    PRT;
                                            11 AA.
     Q9R446
ID
     Q9R446;
AC
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Carbamoyl-phosphate synthase subunit A (Fragment).
DΕ
GN
     CARA.
OS
     Neisseria gonorrhoeae.
     Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
OC
     Neisseriaceae; Neisseria.
OC
     NCBI TaxID=485;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=MS11, and FA1090;
RC
     MEDLINE=95291461; PubMed=7773412;
RX
     Lawson F.S., Billowes F.M., Dillon J.A.;
RA
      "Organization of carbamoyl-phosphate synthase genes in Neisseria
RT
      gonorrhoeae includes a large, variable intergenic sequence which is
RT
     also present in other Neisseria species.";
RT
     Microbiology 141:0-0(0).
RL
RN
      [2]
```

```
SEQUENCE FROM N.A.
RP
     STRAIN=MS11, and FA1090;
RC
     Brinkman F.S.L., Francis F.M., Dillon J.R.;
RA
     "Complexity of the variable sequence between the carbamoyl-phosphate
RT
     synthase genes of Neisseria species.";
RT
     Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF029363; AAC78453.1; -.
DR
     EMBL; AF029362; AAC78452.1; -.
DR
     NON TER
\Gamma T
                   1
                          1
                11 AA; 1178 MW; 0C07A8E3DDD33694 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                      Gaps
                                                                              0;
                                 0; Mismatches
                                                    0; Indels
 Matches
             2; Conservative
            1 AK 2
Qу
              11
            8 AK 9
Db
RESULT 19
08GMU3
                                   PRT;
                                           11 AA.
                 PRELIMINARY;
ΙD
     Q8GMU3
     Q8GMU3;
AC
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Putative catalase isozyme (Fragment).
GN
     KATA.
OS
     Acinetobacter lwoffii.
     Plasmid pKLH202.
OG
     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
OC
     Moraxellaceae; Acinetobacter.
OX
     NCBI TaxID=28090;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=TC108;
     Kholodii G.Y., Yurieva O.V., Mindlin S.Z., Gorlenko Z.M.,
RA
     Nikiforov V.G.;
RA
     "pKLH2-like aberrant transposons and possible mechanisms of their
RT
RT
     dissemination.";
     Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AJ250245; CAC80800.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
KW
     Plasmid.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1233 MW;
                                  81A15757B333276A CRC64;
SQ
  Query Match
                          18.2%;
                                  Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                              0;
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
            2; Conservative
            2 KK 3
Qу
              11
Db
            6 KK 7
```

```
Q7X566
                                   PRT;
                                          11 AA.
                 PRELIMINARY;
ID
     Q7X566
AC
     07X566;
     01-OCT-2003 (TrEMBLrel. 25, Created)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Hypothetical protein (Fragment).
DE
     Thermus thermophilus.
OS
     Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC
OC
     Thermus.
     NCBI TaxID=274;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Miyazaki T., Miyazaki J., Nishiyama M., Yamane H.;
RA
     "Characterization of a LysN, the 4th enzyme in lysine biosynthesis, in
RT
     an extremely thermophilic bacterium, Thermus thermophilus HB27.";
RT
     Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AB097117; BAC76940.1; -.
DR
     Hypothetical protein.
KW
FT
     NON TER
                  11
                         11
                        1073 MW; 39792C1E75B72EB8 CRC64;
     SEQUENCE
                11 AA;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                       Indels
                                                                      Gaps
                                                                              0;
             2; Conservative
                                 0; Mismatches
                                                    0;
  Matches
            5 KP 6
Qy
              \mathbf{I}
            9 KP 10
Db
RESULT 21
Q9UR95
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
     Q9UR95
ID
AC
     09UR95;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DT
     Heat shock protein 60 homolog (Fragment).
DE
OS
     Pichia angusta (Yeast) (Hansenula polymorpha).
     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; Saccharomycetaceae; Pichia.
OC
     NCBI_TaxID=4905;
OX
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=93223840; PubMed=8096822;
RX
     Evers M.E., Huhse B., Titorenko V.I., Kunau W.H., Hartl F.U.,
RA
     Harder W., Veenhuis M.;
RA
     "Affinity purification of molecular chaperones of the yeast Hansenula
RT
RT
     polymorpha using immobilized denatured alcohol oxidase.";
     FEBS Lett. 321:32-36(1993).
RL
     SEOUENCE
                11 AA; 1230 MW;
                                  71872C1779C3372B CRC64;
SO
                           18.2%; Score 2; DB 3; Length 11;
  Query Match
                           100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                      Gaps
                                                                               0;
  Matches
             2; Conservative
                                 0; Mismatches
                                                   0;
                                                       Indels
                                                                  0;
```

RESULT 20

```
3 KE 4
Qу
              \Box
            3 KE 4
Db
RESULT 22
060761
                                            11 AA.
                                    PRT;
                 PRELIMINARY;
ID
     060761
AC
     060761;
     01-AUG-1998 (TrEMBLrel. 07, Created)
DT
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     NPT-1 protein (Fragment).
DE
     NPT-1.
GN
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=98207718; PubMed=9545579;
RX
     Taketani Y., Miyamoto K., Chikamori M., Tanaka K., Yamamoto H.,
RA
     Tatsumi S., Morita K., Takeda E.;
RA
     "Characterization of the 5' flanking region of the human NPT-1
RT
     Na+/phosphate cotransporter gene.";
RT
     Biochim. Biophys. Acta 1396:267-272(1998).
RL
     EMBL; D83236; BAA25645.1; -.
DR
     NON TER
                  11
                         11
FT
                11 AA; 1358 MW; 884E2D4E6734044A CRC64;
     SEQUENCE
SQ
                           18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                               0;
                                  0; Mismatches
                                                    0;
                                                       Indels
                                                                       Gaps
             2; Conservative
  Matches
            2 KK 3
Qу
              11
           10 KK 11
Db
RESULT 23
Q9UCP5
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q9UCP5
AC
     O9UCP5;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Aggrecan core protein (Fragment).
DE
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=92235266; PubMed=1569188;
RX
     Sandy J.D., Flannery C.R., Neame P.J., Lohmander L.S.;
RA
     J. Clin. Invest. 89:1512-1516(1992).
RL
```

```
GO; GO:0005201; F:extracellular matrix structural constituent; TAS.
DR
    GO; GO:0006508; P:proteolysis and peptidolysis; NAS.
DR
     GO; GO:0001501; P:skeletal development; NAS.
DR
    NON TER
                  1
                         1
FT
    NON TER
                 11
                        11
FT
               11 AA; 1149 MW; 8FBFE8DFE72042D5 CRC64;
SO
    SEQUENCE
                         18.2%; Score 2; DB 4; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.1e+05;
                                                0; Indels
                                                              0; Gaps
                                                                             0;
                              0; Mismatches
           2; Conservative
            5 KP 6
Qy
              \mathbf{I}
          10 KP 11
Db
RESULT 24
09NL65
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ΤD
    Q9NL65
AC
     Q9NL65;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
DT
     ASABF-delta (Fragment).
DE
     ASABF-DELTA.
GN
     Ascaris suum (Pig roundworm) (Ascaris lumbricoides).
OS
     Eukaryota; Metazoa; Nematoda; Chromadorea; Ascaridida; Ascaridoidea;
OC
     Ascarididae; Ascaris.
OC
OX
     NCBI_TaxID=6253;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Kato Y.;
RA
     "Ascaris suum asabf-delta gene, exon 2.";
RT
     Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AB029815; BAA89496.1; -.
DR
     NON TER
                          1
FT
                  1
     NON TER
                  11
                         11
FT
               11 AA; 1187 MW; 8BADD0CD1EAB5861 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                             0;
                                                                 0; Gaps
                              0; Mismatches 0; Indels
            2; Conservative
  Matches
            4 EK 5
Qу
              8 EK 9
RESULT 25
O9TWX6
                                           11 AA.
                 PRELIMINARY;
                                   PRT;
ID
     Q9TWX6
AC
     Q9TWX6;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Juvenile hormone binding protein, JHBP=12.5 kDa CNBR peptide
DΕ
DE
     (Fragment).
```

```
Manduca sexta (Tobacco hawkmoth) (Tobacco hornworm).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Sphingiodea;
OC
     Sphingidae; Sphinginae; Manduca.
OC
     NCBI TaxID=7130;
OX
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=92134256; PubMed=1734862;
RX
     Touhara K., Prestwich G.D.;
RA
     "Binding site mapping of a photoaffinity-labeled juvenile hormone
RT
     binding protein.";
RT
     Biochem. Biophys. Res. Commun. 182:466-473(1992).
RL
                          1
     NON TER
                   1
FT
     NON TER
                         11
FT
                  11
                                  D232A98E705045BD CRC64;
                11 AA; 1071 MW;
     SEQUENCE
SO
                          18.2%; Score 2; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
            1 AK 2
Qу
              \perp
           10 AK 11
Db
RESULT 26
Q86D32
                                            11 AA.
                                    PRT:
     Q86D32
                 PRELIMINARY;
ID
     Q86D32;
AC
     01-JUN-2003 (TrEMBLrel. 24, Created)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Histone H1 (Fragment).
DE
     Trypanosoma cruzi.
os
     Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
oc
     NCBI TaxID=5693;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RΡ
RC
     STRAIN=Dm28c;
     MEDLINE=22557728; PubMed=12670512;
RX
     Sturm N.R., Vargas N.S., Westenberger S.J., Zingales B.,
RA
     Campbell D.A.;
RA
     "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
RT
     Int. J. Parasitol. 33:269-279(2003).
     EMBL; AF545075; AAP21903.1; -.
DR
     NON TER
                   11
                          11
FT
                 11 AA; 1114 MW; CCC1B31E7772CDDD CRC64;
     SEQUENCE
SO
                           18.2%; Score 2; DB 5; Length 11;
  Query Match
                           100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                       Gaps
             2; Conservative
  Matches
             2 KK 3
Qу
               \mathbf{H}
             9 KK 10
 Db
```

```
RESULT 27
Q86D31
                                    PRT:
                                            11 AA.
                 PRELIMINARY;
ΙĎ
     Q86D31
     Q86D31;
AC
     01-JUN-2003 (TrEMBLrel. 24, Created)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Histone H1 (Fragment).
DE
     Trypanosoma cruzi.
OS
     Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
OC
     NCBI TaxID=5693;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=Sylvio X10;
RC
     MEDLINE=22557728; PubMed=12670512;
RX
     Sturm N.R., Vargas N.S., Westenberger S.J., Zingales B.,
RA
     Campbell D.A.;
RA
     "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
RT
     Int. J. Parasitol. 33:269-279(2003).
RL
     EMBL; AF545076; AAP21906.1; -.
DR
     NON TER
                  11
                          11
FT
                        1174 MW; CCD1B21E7772CDDD CRC64;
     SEQUENCE
                11 AA;
SQ
                           18.2%; Score 2; DB 5; Length 11;
  Query Match
                           100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                                0;
                                                     0; Indels
                                                                   0;
                                                                       Gaps
                                  0; Mismatches
             2; Conservative
  Matches
            2 KK 3
Qу
              | \cdot |
            9 KK 10
Db
RESULT 28
Q95PX6
                  PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q95PX6
AC
     Q95PX6;
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DE
     Hypothetical protein.
     ZK1236.8.
GN
     Caenorhabditis elegans.
OS
     Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC
     Rhabditidae; Peloderinae; Caenorhabditis.
OC
     NCBI TaxID=6239;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=Bristol N2;
RC
     MEDLINE=99069613; PubMed=9851916;
RX
     None;
RA
     "Genome sequence of the nematode C. elegans: a platform for
RT
     investigating biology. The C. elegans Sequencing Consortium.";
RT
     Science 282:2012-2018(1998).
RL
RN
     SEQUENCE FROM N.A.
RΡ
      STRAIN=Bristol N2;
RC
     Favello A.;
RA
```

```
"The sequence of C. elegans cosmid ZK1236.";
RT
     Submitted (MAY-1993) to the EMBL/GenBank/DDBJ databases.
RL
RN
     SEQUENCE FROM N.A.
RP
     STRAIN=Bristol N2;
RC
RA
     Waterston R.;
     "Direct Submission.";
RT
     Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; L13200; AAL11108.1; -.
DR
     WormPep; ZK1236.8; CE29629.
DR
     Hypothetical protein.
KW
                11 AA; 1304 MW; DFA3510A25A76322 CRC64;
SQ
     SEOUENCE
                          18.2%; Score 2; DB 5; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
                                                                               0:
                                                    0; Indels
                                                                   0;
                                                                       Gaps
             2; Conservative
                                  0; Mismatches
  Matches
            2 KK 3
Qу
              11
            8 KK 9
Db
RESULT 29
Q9TRW5
                                    PRT; 11 AA.
                 PRELIMINARY;
     Q9TRW5
ID
AC
     Q9TRW5;
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     25 kDa protein P25, peptide F4 (Fragment).
DΕ
     Bos taurus (Bovine).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
     Bovidae; Bovinae; Bos.
OC
     NCBI TaxID=9913;
OX
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=91372400; PubMed=1909972;
RX
     Takahashi M., Tomizawa K., Ishiguro K., Sato K., Omori A., Sato S.,
RA
     Shiratsuchi A., Uchida T., Imahori K.;
"A novel brain-specific 25 kDa protein (p25) is phosphorylated by a
RA
RT
     Ser/Thr-Pro kinase (TPK II) from tau protein kinase fractions.";
RT
    `FEBS Lett. 289:37-43(1991).
RL
     NON TER
                   1
                           1
FT
     NON TER
                   11
                          11
FT
                11 AA; 1276 MW; CAF72DAF65A76AA9 CRC64;
     SEQUENCE
SQ
                           18.2%; Score 2; DB 6; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                                0;
                                                                   0; Gaps
             2; Conservative
                                0; Mismatches
                                                     0; Indels
  Matches
             3 KE 4
Qу
              11
             1 KE 2
Db
```

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077872
                                   PRT;
                                            11 AA.
                 PRELIMINARY;
ID
    077872
     077872;
AC
     01-NOV-1998 (TrEMBLrel. 08, Created)
DΤ
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
    MHC class II B locus 1 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
OX
     NCBI TaxID=8128;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=98315113; PubMed=9649539;
RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF049981; AAC41320.1; -.
DR
     NON TER
                          1
FT
                   1
                         11
FT
     NON TER
                  11
                                  283248EC3EB72728 CRC64;
                11 AA; 1133 MW;
     SEQUENCE
SQ
                                   Score 2; DB 7; Length 11;
                           18.2%;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                   0; Gaps
                                                                               0;
             2; Conservative
                                  0: Mismatches
                                                    0;
                                                       Indels
  Matches
            5 KP 6
Qу
              11
            8 KP 9
Db
RESULT 31
077873
                                    PRT;
                                            11 AA.
                 PRELIMINARY;
     077873
TD
     077873;
AC
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 1 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
     NCBI TaxID=8128;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=98315113; PubMed=9649539;
RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
```

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NON TER
                  1
                         1
FT
     NON TER
                  11
                         11
FT
                11 AA; 1133 MW; 283248EC3EB72728 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 7; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                                 0; Mismatches
                                                   0; Indels
  Matches
             2; Conservative
Qу
            5 KP 6
              11
            8 KP 9
Db
RESULT 32
077871
                                   PRT;
                                           11 AA.
                 PRELIMINARY;
ID
     077871
AC
     077871;
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 1 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
     NCBI_TaxID=8128;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=98315113; PubMed=9649539;
RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF049980; AAC41319.1; -.
DR
     NON TER
                   1
                          1
FT
     NON TER
                         11
FT
                  11
                       1133 MW; 283248EC3EB72728 CRC64;
     SEQUENCE
                11 AA;
SQ
                          18.2%; Score 2; DB 7; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                Conservative
             2;
            5 KP 6
Qу
            8 KP 9
RESULT 33
Q38415
                                    PRT;
                                            11 AA.
ID
     Q38415
                 PRELIMINARY;
AC
     038415;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
```

EMBL; AF049982; AAC41321.1; -.

DR

```
Ant1 protein (Fragment).
DE
    Bacteriophage P7.
OS
    Viruses; dsDNA viruses, no RNA stage; Caudovirales; Myoviridae;
OC
OC
     P1-like viruses.
    NCBI TaxID=10682;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
    MEDLINE=90335968; PubMed=1696181;
RX
     Citron M., Schuster H.;
RA
     "The c4 repressors of bacteriophages P1 and P7 are antisense RNAs.";
RT
     Cell 62:591-598(1990).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
    MEDLINE=92319637; PubMed=1620606;
RX
     Citron M., Schuster H.;
RA
     "The c4 repressor of bacteriophage P1 is a processed 77 base antisense
RT
     RNA.";
RT
    Nucleic Acids Res. 20:3085-3090(1992).
RL
     EMBL; M35139; AAA32437.1; -.
DR
     PIR; S42449; S42449.
DR
     NON TER
FT
                  11
                         11
                11 AA; 1315 MW; 38A55C6D11B2C737 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 9; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                                               0;
                                                    0;
                                                        Indels
                                                                  0;
                                                                      Gaps
  Matches
             2; Conservative
            2 KK 3
Qу
              \perp
            2 KK 3
Db
RESULT 34
Q37925
                                    PRT;
                                            11 AA.
     Q37925
                 PRELIMINARY;
ID
AC
     037925;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DТ
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Bacteriophage fr replicase (Fragment).
DE
OS
     Bacteriophage fr.
     Viruses; ssRNA positive-strand viruses, no DNA stage; Leviviridae;
OC
OC
     Levivirus.
OX
     NCBI TaxID=12017;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Berzin V.M., Gribanov V.A., Cielens I.E., Jansone I.V., Gren E.J.;
RA
     "The nucleotide sequence of the regulatory region of phage fr
RT
     replicase cistron.";
RT
     Bioorg. Khim. 7:306-308(1981).
RL
     EMBL; M34834; AAA32193.1; -.
DR
FT
     NON TER
                  11
                         11
                11 AA; 1285 MW;
                                   8BD43470C33321B1 CRC64;
SQ
     SEOUENCE
                           18.2%; Score 2; DB 9; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                               0;
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                   0; Gaps
  Matches
```

```
2 KK 3
Qу
              Db
            6 KK 7
RESULT 35
065901
                                    PRT;
                                            11 AA.
     065901
                 PRELIMINARY;
TD
AC
     065901;
     01-AUG-1998 (TrEMBLrel. 07, Created)
DT
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Phosphoglucose isomerase (Fragment).
DE
GN
     Leavenworthia crassa.
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Brassicales; Brassicaceae; Leavenworthia.
OC
     NCBI TaxID=70805;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=cv. CR8919/CR15, and cv. CR8919/CD6;
RC
     Liu F., Charlesworth D., Kreitman M.;
RA
     Submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF054493; AAC19033.1; -.
DR
DR
     EMBL; AF054492; AAC19032.1; -.
DR
     GO; GO:0016853; F:isomerase activity; IEA.
     Isomerase.
KW
     NON TER
                   1
                           1
FT
     NON TER
                  11
                          11
FT
                                   5026B3A4BDD87337 CRC64;
     SEQUENCE
                11 AA; 1208 MW;
SO
                           18.2%; Score 2; DB 10; Length 11;
  Query Match
                           100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                  0; Mismatches
                                                    0;
                                                        Indels
                                                                   0;
                                                                       Gap.s.
                                                                                0;
  Matches
             2; Conservative
            4 EK 5
Qу
              II
            1 EK 2
Db
RESULT 36
039784
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     039784
AC
     039784;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last annotation update)
DT
     Alcohol dehydrogenase 2b-2 (Fragment).
DE
     Gossypium hirsutum (Upland cotton).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Gossypium.
OC
     NCBI TaxID=3635;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
```

```
STRAIN=Blue Tag Siokra;
RC
     Millar A.A., Dennis E.S.;
RA
     Submitted (APR-1996) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; U53705; AAA98988.1; -.
DR
FT
     NON TER
                  11
                         11
                11 AA; 1161 MW; D67F443942D6D87D CRC64;
SQ
     SEOUENCE
                          18.2%; Score 2; DB 10; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
            1 AK 2
Qу
              11
           10 AK 11
Db
RESULT 37
Q04131
                                   PRT;
                                           11 AA.
                 PRELIMINARY;
ID
     004131
     004131;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Wound induced protein (Fragment).
DΕ
     Lycopersicon esculentum (Tomato).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Solanaceae; Solanum.
OC
OX
     NCBI TaxID=4081;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=pik-red; TISSUE=Pericarp;
RC
RX
     MEDLINE=91355936; PubMed=1715787;
RA
     Parsons B.L., Mattoo A.K.;
     "Wound regulated accumulation of specific transcripts in tomato fruit:
RT
     interactions with fruit development, ethylene and light.";
RT
RL
     Plant Mol. Biol. 17:453-464(1991).
DR
     EMBL; X59884; CAA42539.1; -.
DR
     PIR; S19775; S19775.
     NON TER
FT
                   1
                11 AA; 1278 MW; 92CB257828733325 CRC64;
SQ
     SEQUENCE
                          18.2%; Score 2; DB 10; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                              0;
                               0; Mismatches
                                                                  0;
  Matches
             2; Conservative
                                                 0;
                                                        Indels
                                                                      Gaps
            2 KK 3
Qy.
              II
            5 KK 6
RESULT 38
Q9JLE6
ID
     Q9JLE6
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9JLE6;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
```

```
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
DT
     Thioredoxin reductase (Fragment).
DE
     Rattus norvegicus (Rat).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX
     NCBI TaxID=10116;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Rundlof A.-K., Arner E.S.J.;
RA
     "Genomic sequence of parts of the rat thioredoxin reductase 1 gene.";
RT
     Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF189711; AAF26304.1; -.
DR
FT
     NON TER
                  11
                         1.1
                11 AA; 1255 MW; 804D1A1E6DDAA325 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 11; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                              0;
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
           10 ND 11
Qy
              11
            2 ND 3
Db
RESULT 39
Q8R2J7
                                   PRT;
                                           11 AA.
ID
     Q8R2J7
                 PRELIMINARY;
AC
     Q8R2J7;
     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Microphthalmia-associated transcription factor (Fragment).
DE
GN
     MITF.
os
     Mesocricetus auratus (Golden hamster).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
OC
     Mesocricetus.
OX
     NCBI TaxID=10036;
RN
     [1]
RΡ
     SEQUENCE FROM N.A.
RC
     TISSUE=Spleen;
RA
     Graw J., Pretsch W., Loester I.;
     "Mutation in intron 6 of the hamster mitf gene leads to skipping of
RT
     the subsequent exon and creates a dominant animal model for the human
RT
RT
     Waardenburg syndrome type II.";
RL
     Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AJ458439; CAD30263.1; -.
     NON TER
                   1
                          1
FT
FT
     NON TER
                  11
                         11
                11 AA; 1532 MW;
SO
     SEQUENCE
                                  69D76B515449D414 CRC64;
                          18.2%; Score 2; DB 11; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
Qу
           10 ND 11
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```
RESULT 40
Q9PS64
                                   PRT;
                                            11 AA.
                 PRELIMINARY;
ID
     Q9PS64
     Q9PS64;
AC
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     PDI-like 53 kDa polypeptide (Fragment).
DΕ
     Gallus gallus (Chicken).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
OC
     Gallus.
     NCBI TaxID=9031;
OX
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=92084663; PubMed=1660884;
RX
     Bassuk J.A., Berg R.A.;
RA
     "A novel 53-kDa polypeptide from chicken embryo.";
RT
     J. Biol. Chem. 266:23732-23738(1991).
RL
FT
     NON_TER
                   1
                          1
     NON TER
                         11
FT
                  11
                        1294 MW; C26984A00AE9C9D6 CRC64;
     SEQUENCE
                11 AA;
SQ
  Query Match
                           18.2%; Score 2;
                                             DB 13; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                                                               0;
                                  0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
  Matches
             2; Conservative
            4 EK 5
Qу
              8 EK 9
Db
RESULT 41
090735
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
     Q90735
ID
AC
     Q90735;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DТ
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Beta-globin gene (Fragment).
DΕ
OS
     Gallus gallus (Chicken).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
OC
     Gallus.
OX
     NCBI TaxID=9031;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=81208060; PubMed=6263308;
RX
     Day L.E., Hirst A.J., Lai E.C., Mace M.Jr., Woo S.L.C.;
RA
     "5' domain and nucleotide sequence of an adult chicken chromosomal
RT
RT
     beta-globin gene.";
     Biochemistry 20:2091-2098(1981).
RL
     EMBL; V00378; CAA23677.1; -.
DR
FT
     NON TER
                  11
                          11
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11 AA; 1372 MW; 271C02021B1DC1B3 CRC64;
SO
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 Query Match
 Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
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                                                                              0;
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
 Matches
            4 EK 5
Qy
              II
            8 EK 9
Db
RESULT 42
Q8AX69
                                   PRT;
                 PRELIMINARY;
                                            11 AA.
ID
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     Q8AX69;
AC
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DT
     Wilm's tumor 1-like protein (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopteryqii; Neopteryqii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
OX
    NCBI TaxID=8128;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Streelman J.T., Howe A.E., Kocher T.D.;
     "Isolation and mapping of candidate genes for sex determination, color
RT
     and the craniofacial skeleton of cichlid fishes.";
RT
     Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AF534550; AAN77179.1; -.
     NON TER
FT
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                          1
                  11
                         11
FT
     NON TER
     SEQUENCE
                11 AA;
                        1267 MW; D957B249A1AB1EA6 CRC64;
SQ
                          18.2%;
                                  Score 2;
                                            DB 13;
                                                     Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                 0; Mismatches
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            5 KP 6
Qу
             - 1-1
            1 KP 2
Db
RESULT 43
Q8AX68
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                                   PRT;
                                            11 AA.
ID
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AC
     08AX68;
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DT
     Wilm's tumor 1-like protein (Fragment).
DE
     Oreochromis aureus (Israeli tilapia).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
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Cichlidae; Oreochromis.
OC
     NCBI TaxID=47969;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Streelman J.T., Howe A.E., Kocher T.D.;
RA
     "Isolation and mapping of candidate genes for sex determination, color
RT
     and the craniofacial skeleton of cichlid fishes.";
RT
     Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF534551; AAN77180.1; -.
DR
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FT
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                          1
                         11
FT
     NON TER
                  11
     SEQUENCE
                11 AA; 1267 MW; D957B249A1AB1EA6 CRC64;
SQ
                          18.2%; Score 2; DB 13; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            5 KP 6
Qy
              -11
            1 KP 2
Db
RESULT 44
Q800X7
     Q800X7
                                   PRT;
                                           11 AA.
ID
                 PRELIMINARY;
AC
     Q800X7;
DT
     01-JUN-2003 (TrEMBLrel. 24, Created)
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Vacuolar H-ATPase B subunit (Fragment).
DE
     Chelydra serpentina serpentina (common snapping turtle).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Testudines; Cryptodira; Testudinoidea; Chelydridae; Chelydra.
OC
     NCBI TaxID=134619;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=21876906; PubMed=11882478;
RX
     Trudeau V.L., Chiu S., Kennedy S.W., Brooks R.J.;
RA
     "Octylphenol (OP) alters the expression of members of the amyloid
RT
     protein family in the hypothalamus of the snapping turtle, Chelydra
RT
     serpentina serpentina.";
RT
RL
     Environ. Health Perspect. 110:269-275(2002).
DR
     EMBL; AF469184; AAO48730.1; -..
FT
     NON TER
                   1
                          1
     SEQUENCE
                11 AA; 1350 MW; 2FC8B6D0B5BAB417 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 13; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
             2: Conservative
                               0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            1 AK 2
Qy
              \Box
            9 AK 10
Db
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RESULT 45 Q7T285

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O7T285
                 PRELIMINARY;
ID
                                    PRT:
                                            11 AA.
АC
     O7T285;
     01-OCT-2003 (TrEMBLrel. 25, Created)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
     Creatine kinase (Fragment).
DE
     Geochelone carbonaria (Red-footed tortoise).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Testudines; Cryptodira; Testudinoidea; Testudinidae; Geochelone.
OX
     NCBI TaxID=50047;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=red;
     Gentile G., Burns C., Sezzi E., Bergman W., Powell J.R., Caccone A.;
RA
     "Contrasting Patterns of Nuclear and Mitochondrial DNA Variation in
RT
RT
     the Giant Galapagos Tortoise.";
     Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY101746; AAM34549.1; -.
DR
KW
     Kinase.
     NON TER
                   1
FT
FT
     NON TER
                  11
                         11
                                   6454ABA6733EB9D4 CRC64;
     SEQUENCE
                        1356 MW;
SQ
                11 AA;
  Query Match
                          18.2%; Score 2; DB 13; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                  0; Mismatches
  Matches
             2; Conservative
                                                    0;
                                                        Indels
                                                                   0;
                                                                               0;
                                                                       Gaps
Qу
            3 KE 4
              11
Dh
           10 KE 11
RESULT 46
Q7T284
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q7T284
AC
     Q7T284;
DT
     01-OCT-2003 (TrEMBLrel. 25, Created)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DΕ
     Creatine kinase (Fragment).
OS
     Geochelone denticulata (Yellow footed tortoise).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Testudines; Cryptodira; Testudinoidea; Testudinidae; Geochelone.
OX
     NCBI TaxID=101697;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=yellow2;
RA
     Gentile G., Burns C., Sezzi E., Bergman W., Powell J.R., Caccone A.;
RT
     "Contrasting Patterns of Nuclear and Mitochondrial DNA Variation in
RT
     the Giant Galapagos Tortoise.";
RL
     Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AY101747; AAM34550.1; -.
KW
     Kinase.
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA;
                        1356 MW;
                                   6454ABA6733EB9D4 CRC64;
```

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Query Match
                          18.2%; Score 2; DB 13; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                                   0; Gaps
                                                                               0;
 Matches
             2; Conservative
                                                    0; Indels
            3 KE 4
Qу
              11
           10 KE 11
Db
RESULT 47
Q7T283
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
    Q7T283
AC
     Q7T283;
     01-OCT-2003 (TrEMBLrel. 25, Created)
DT.
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Creatine kinase (Fragment).
DE
     Geochelone pardalis (Leopard tortoise).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Testudines; Cryptodira; Testudinoidea; Testudinidae; Geochelone.
OC.
    NCBI TaxID=55540;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=to;
     Gentile G., Burns C., Sezzi E., Bergman W., Powell J.R., Caccone A.;
RA
     "Contrasting Patterns of Nuclear and Mitochondrial DNA Variation in
RT
RT
     the Giant Galapagos Tortoise.";
RL
     Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
     EMBL; AY101748; AAM34551.1; -.
DR
KW
     Kinase.
FT
     NON_TER
                   1
                           1
     NON TER
                  11
                          11
FT
                11 AA; 1356 MW; 6454ABA6733EB9D4 CRC64;
SO
     SEQUENCE
                                   Score 2; DB 13; Length 11;
  Query Match
                           18.2%;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                 0; Mismatches
                                                        Indels
                                                                   0; Gaps
                                                                               0;
  Matches
             2; Conservative
            3 KE 4
Qу
              \perp \perp
           10 KE 11
Db
RESULT 48
07SX72
                                    PRT;
                                            11 AA.
                 PRELIMINARY;
ID
     Q7SX72
AC
     07SX72;
     01-OCT-2003 (TrEMBLrel. 25, Created)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Creatine kinase (Fragment).
DΕ
OS
     Geochelone chilensis.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Testudines; Cryptodira; Testudinoidea; Testudinidae; Geochelone.
OC
OX
     NCBI TaxID=106216;
RN
     [1]
RP
     SEQUENCE FROM N.A.
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STRAIN=1864, and 8136;
RC
     Gentile G., Burns C., Sezzi E., Bergman W., Powell J.R., Caccone A.;
RA
     "Contrasting Patterns of Nuclear and Mitochondrial DNA Variation in
RT
     the Giant Galapagos Tortoise.";
RT
     Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY101744; AAM34547.1; -.
DR
     EMBL; AY101745; AAM34548.1; -.
DR
KW
     Kinase.
FT
     NON TER
                   1
                          1
     NON TER
                  11
                         11
FT
                11 AA; 1356 MW; 6454ABA6733EB9D4 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 13; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
                                                                  0;
                                                                              0;
                                                                      Gaps
                              0; Mismatches
                                                 0; Indels
  Matches
             2; Conservative
            3 KE 4
Qу
              11
Db
           10 KE 11
RESULT 49
07SX71
                                           11 AA.
                 PRELIMINARY;
                                   PRT:
ID
     Q7SX71
AC
     07SX71;
     01-OCT-2003 (TrEMBLrel. 25, Created)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Creatine kinase (Fragment).
DΕ
OS
     Geochelone nigra (Galapagos giant tortoise).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Testudines; Cryptodira; Testudinoidea; Testudinidae; Geochelone.
OC
OX
     NCBI TaxID=66189;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=AGO1, CAZ22, CRU1, ESP1, LG, ME4, PB3, P244, PZ6, and VA935;
RC
     Gentile G., Burns C., Sezzi E., Bergman W., Powell J.R., Caccone A.;
RA
     "Contrasting Patterns of Nuclear and Mitochondrial DNA Variation in
RT
     the Giant Galapagos Tortoise.";
RT
     Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AY101734; AAM34537.1; -.
DR
     EMBL; AY101735; AAM34538.1; -.
DR
     EMBL; AY101736; AAM34539.1; -.
     EMBL; AY101737; AAM34540.1; -.
DR
     EMBL; AY101738; AAM34541.1; -.
DR
     EMBL; AY101739; AAM34542.1; -.
DR
DR
     EMBL; AY101740; AAM34543.1; -.
     EMBL; AY101741; AAM34544.1; -.
DR
     EMBL; AY101742; AAM34545.1; -.
DR
DR
     EMBL; AY101743; AAM34546.1; -.
KW
     Kinase.
                          1
FT
     NON TER
                   1
     NON TER
                  11
                         11
FT
                11 AA; 1356 MW; 6454ABA6733EB9D4 CRC64;
     SEQUENCE
SQ
  Query Match
                          18.2%; Score 2; DB 13; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
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0; Indels
                                                                   0; Gaps
                                                                               0;
  Matches 2; Conservative
                                 0; Mismatches
            3 KE 4
Qу
              11
           10 KE 11
Db
RESULT 50
Q9DZ32
ID
     Q9DZ32
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9DZ32;
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Gag polyprotein (Fragment).
DE
     GAG.
GN
     Human immunodeficiency virus 1.
OS
     Viruses; Retroid viruses; Retroviridae; Lentivirus.
OC
     NCBI TaxID=11676;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=20461476; PubMed=11005867;
RX
     Martinez-Picado J., DePasquale M.P., Kartsonis N., Hanna G.J.,
RA
     Wong J., Finzi D., Rosenberg E., Gunthard H.F., Sutton L., Savara A.,
RA
     Petropoulos C.J., Hellmann N., Walker B.D., Richman D.D.,
RA
RA
     Siliciano R., D'Aquila R.T.;
RT
     "Antiretroviral resistance during successful therapy of HIV type 1
RT
     infection.";
     Proc. Natl. Acad. Sci. U.S.A. 97:10948-10953(2000).
RL
     EMBL; AF292799; AAG25407.1; -.
DR
KW
     Polyprotein.
FT
     NON TER
                11 AA; 1386 MW;
                                   79DC73C0145771B4 CRC64;
     SEQUENCE
SQ
                                                     Length 11;
                                   Score 2; DB 15;
  Query Match
                           18.2%;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
  Matches
                                  0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
             2; Conservative
            6 PN 7
Qу
              \Pi
            6 PN 7
Db
RESULT 51
Q9K7A4
                                    PRT;
                                            11 AA.
                 PRELIMINARY;
ID
     Q9K7A4
AC
     09K7A4;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
\mathbf{DT}
     Hypothetical protein BH3464.
DE
GN
     BH3464.
OS
     Bacillus halodurans.
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
OX
     NCBI TaxID=86665;
RN
     [1]
RP
     SEQUENCE FROM N.A.
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MEDLINE=20512582; PubMed=11058132;
RX
     Takami H., Nakasone K., Takaki Y., Maeno G., Sasaki R., Masui N.,
RA
     Fuji F., Hirama C., Nakamura Y., Ogasawara N., Kuhara S.,
RA
RA
     Horikoshi K.;
RT
     "Complete genome sequence of the alkaliphilic bacterium Bacillus
     halodurans and genomic sequence comparison with Bacillus subtilis.";
RT
     Nucleic Acids Res. 28:4317-4331(2000).
RL
     EMBL; AP001518; BAB07183.1; -.
DR
     PIR; H84082; H84082.
DR
     Hypothetical protein; Complete proteome.
KW
               11 AA; 1219 MW; 5F7D235CB7272B13 CRC64;
SQ
                          18.2%; Score 2; DB 16; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                              0;
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0;
                                                                      Gaps
            3 KE 4
QУ
              \perp
Db
            4 KE 5
RESULT 52
068237
                                   PRT;
                                            11 AA.
ID
     068237
                 PRELIMINARY;
     068237;
AC
     01-AUG-1998 (TrEMBLrel. 07, Created)
DT
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Plasmid cp32-4, possible partition proteins (Fragment).
DE
     Borrelia burgdorferi (Lyme disease spirochete).
OS
OG
     Plasmid cp32-4.
OC
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OX
     NCBI TaxID=139;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=B31;
RX
     MEDLINE=98361033; PubMed=9695920;
RA
     Stevenson B., Casjens S., Rosa P.;
     "Evidence of past recombination events among the genes encoding the
RT
RT
     Erp antigens of Borrelia burgdorferi.";
RL
     Microbiology 144:1869-1879(1998).
DR
     EMBL; AF022481; AAC35449.1; -.
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
KW
     Plasmid.
FT
     NON TER
                  11
                         11
SQ · SEQUENCE
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                                  50E3B714D45B5DD7 CRC64;
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 6.8e+05;
             1; Conservative
                                 0; Mismatches
  Matches
                                                    0:
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            7 N 7
Qу
Db
            3 N 3
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STRAIN=C-125 / JCM 9153;

RC

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048933
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
ID
     Q48933
     Q48933; P77701; Q48932;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DT
     Alkyl hydroperoxide reductase C (Fragment).
DE
GN
     AHPC.
     Mycobacterium bovis.
OS
     Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
OC
     Corynebacterineae; Mycobacteriaceae; Mycobacterium.
OC
OX
     NCBI TaxID=1765;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=ATCC35728, and ATCC35727;
RC
RA
     Zhang Y., Deretic V.;
     Submitted (MAY-1996) to the EMBL/GenBank/DDBJ databases.
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
     STRAIN=ATCC35735;
RC
     MEDLINE=96256622; PubMed=8655566;
RX
     Dhandayuthapani S., Zhang Y., Deretic V.;
RA
     "Oxidative stress response and its role in sensitivity to isoniazid in
RT
     mycobacteria: characterization and inducibility of ahpC by peroxides in
RT
     Mycobacterium smegmatis and lack of expression in M. aurum and M.
RT
RT
     tuberculosis.";
RL
     J. Bacteriol. 178:3641-3649(1996).
     EMBL; U58031; AAB00320.1; -.
DR
DR
     EMBL; U57979; AAA99830.1; -.
DR
     EMBL; U57978; AAA99829.1; -.
DR
     EMBL; U57762; AAB00317.1; -.
FT
     NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA; 1231 MW;
                                  455099E3A87041A7 CRC64;
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 6.8e+05;
  Best Local Similarity
  Matches
             1; Conservative 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
            6 P 6
Qу
            2 P 2
Db
RESULT 54
Q47451
     Q47451
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
AC
     Q47451;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Plasmid pRJ1004 DNA (Fragment).
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
```

RESULT 53

```
RC
     STRAIN=pRJ1004;
     MEDLINE=96130847; PubMed=8594334;
RX
RA
     Brown N.L., Barrett S.R., Camakaris J., Lee B.T., Rouch D.A.;
     "Molecular genetics and transport analysis of the copper-resistance
RT
     determinants (pco) from Escherichia coli plasmid pRJ1004.";
RT
     Mol. Microbiol. 17:1153-1166(1995).
RL
     EMBL; X83541; CAA58524.1; -.
DR
     PIR; S70166; S52252.
DR
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1195 MW;
                                  47D864F8ADC1A057 CRC64;
SQ
  Query Match
                           9.1%;
                                  Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 6.8e+05;
  Best Local Similarity
                                                                              0;
 Matches
             1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            7 N 7
Qу
Db
            2 N 2
RESULT 55
O9AIZ7
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     O9AIZ7
AC
     09AIZ7;
     01-JUN-2001 (TrEMBLrel. 17, Created)
DТ
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DТ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Tryptophanyl-tRNA synthetase (Fragment).
DE
GN
     TRPS.
OS
     Carsonella ruddii.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Candidatus Carsonella.
OX
     NCBI TaxID=114186;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=20336438; PubMed=10877784;
RX
     Thao M.L., Moran N.A., Abbot P., Brennan E.B., Burckhardt D.H.,
RA
     Baumann P.;
RT
     "Cospeciation of psyllids and their primary prokaryotic
     endosymbionts.";
RT
RL
     Appl. Environ. Microbiol. 66:2898-2905(2000).
RN
     [2]
RP
     SEQUENCE FROM N.A.
     MEDLINE=21125546; PubMed=11222582;
RX
     Clark M.A., Baumann L., Thao M.L., Moran N.A., Baumann P.;
RA
     "Degenerative Minimalism in the Genome of a Psyllid Endosymbiont.";
RT
RL
     J. Bacteriol. 183:1853-1861(2001).
     EMBL; AF211132; AAK15377.1; -.
DR
DR
     GO; GO:0004812; F:tRNA ligase activity; IEA.
KW
     Aminoacyl-tRNA synthetase.
FT
     NON TER
                   1
                          1
     SEQUENCE
                11 AA; 1333 MW; A28C67D6533059C6 CRC64;
SQ
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 6.8e+05;
  Best Local Similarity
  Matches
             1; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
```

SEOUENCE FROM N.A.

RP

```
2 K 2
Qу
             . [
            7 K 7
Db
RESULT 56
O8RKN1
                                            11 AA.
                 PRELIMINARY;
                                   PRT;
ΙD
     Q8RKN1
     Q8RKN1;
AC
     01-JUN-2002 (TrEMBLrel. 21, Created)
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Beta-lactamase CTX-M-9 (Fragment).
DE
     BLACTX-M-9.
GN
     Escherichia coli.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
     [1]
RN
     SEOUENCE FROM N.A.
RP
     STRAIN=743-D;
RC
     Sabate M., Navarro F., Miro E., Campoy S., Mirelis B., Barbe J.,
RA
     Prats G.;
RA
     "A novel complex sull-type integron in Escherichia coli carrying the
RT
     bla(CTX-M-9) gene.";
RT
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY092058; AAM15718.1; -.
DR
FT
     NON TER
                   1
                          1
                11 AA; 1071 MW; C26BF418D050440D CRC64;
     SEQUENCE
SQ
                            9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.8e+05;
                                                                               0;
                                                    0; Indels
                                                                       Gaps
             1; Conservative
                                 0; Mismatches
            1 A 1
Qу
            1 A 1
Db
RESULT 57
Q52526
                                            11 AA.
                                    PRT;
     Q52526
                  PRELIMINARY;
ID
AC
     Q52526;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Megaplasmid SYM nodulation node (Fragment).
DE
     Rhizobium sp.
OS
     Plasmid SYM.
OG
     Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC
     Rhizobiaceae; Rhizobium/Agrobacterium group; Rhizobium.
OC
     NCBI TaxID=391;
OX
 RN
      [1]
      SEQUENCE FROM N.A.
 RP
      STRAIN=41;
 RC
      Rostas K., Kondorosi E., Horvath B., Simoncsits A., Kondorosi A.;
 RA
      "Conservation of extended promoter regions of nodulation genes in
 RT
```

```
RT
     Rhizobium.";
     Proc. Natl. Acad. Sci. U.S.A. 83:1757-1761(1986).
RL
     EMBL; M13289; AAB86797.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
     Plasmid.
KW
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA;
                        1233 MW; C966816205BB1736 CRC64;
SQ
                         9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.8e+05;
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
                                                   0; Indels
            4 E 4
Qy
              П
Db
            6 E 6
RESULT 58
Q8KHL0
                                           11 AA.
ID
     Q8KHL0
                 PRELIMINARY;
                                   PRT:
AC
     O8KHLO;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
DE
     Hypothetical protein (Fragment).
OS
     Streptococcus gallolyticus.
OC
     Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC
     Streptococcus.
OX
     NCBI TaxID=53354;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=4-C11, and 4-G10; TRANSPOSON=Tn5382-like;
RC
     Dahl K.H., Sundsfjord A.;
RA
     "vanB2 operons linked to Tn5382-like elements in Streptococcus strains
RT
RT
     from veal calves.";
     Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY035710; AAL07295.1; -.
DR
     EMBL; AY035711; AAL07297.1; -.
DR
ΚW
     Hypothetical protein.
     NON TER
                  11
FT
                         11
     SEQUENCE
                11 AA; 1329 MW; 93207414D1EEAB5E CRC64;
SQ
                                  Score 1; DB 2; Length 11;
                           9.1%;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.8e+05;
  Matches
             1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 A 1
Qу
              1
            8 A 8
Db
RESULT 59
Q47602
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     Q47602
     047602;
AC.
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
```

```
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     REase protein (Fragment).
DE
     REASE.
GN
     Escherichia coli.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
    NCBI TaxID=562;
OX
RN
    [1]
RP
     SEQUENCE FROM N.A.
RX
    MEDLINE=91139577; PubMed=1995588;
    Tao T., Bourne J.C., Blumenthal R.M.;
RA
     "A family of regulatory genes associated with type II restriction-
RT
    modification systems.";
RT
    J. Bacteriol. 173:1367-1375(1991).
RL
    EMBL; M63620; AAA24558.1; -.
DR
    NON TER
                 11
FT
                        11
               11 AA; 1412 MW; 80ABB190C736DAAA CRC64;
    SEQUENCE
SQ
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                         100.0%; Pred. No. 6.8e+05;
  Best Local Similarity
            1; Conservative 0; Mismatches 0; Indels
                                                                             0:
 Matches
                                                                 0; Gaps
           11 D 11
QУ
             -1
Db
            4 D 4
RESULT 60
Q8L2T4
                PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     Q8L2T4
AC
     Q8L2T4;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
DE
    Histidinol phosphatase (Fragment).
    Neisseria meningitidis.
OS
    Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
OC
OC
    Neisseriaceae; Neisseria.
    NCBI TaxID=487;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
    STRAIN=126E;
    MEDLINE=22051050; PubMed=12055303;
RX
     Zhu P., Klutch M.J., Bash M.C., Tsang R.S.W., Ng L.K., Tsai C.M.;
RA
     "Genetic Diversity of Three Lgt Loci for Biosynthesis of
RT
     Lipooligosaccharide (LOS) in Neisseria Species.";
RT
    Microbiology 148:1833-1844(2002).
RL
DR
     EMBL; AF470685; AAM33538.1; -.
FT
     NON TER
                  11
                        11
     SEQUENCE
                11 AA; 1273 MW; 01EC828D0AA72050 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
                         100.0%; Pred. No. 6.8e+05;
  Best Local Similarity
                                                                 0; Gaps
            1; Conservative 0; Mismatches
                                                0; Indels
                                                                             0;
 Matches
            2 K 2
QУ
              -
```

```
RESULT 61
098623
                                    PRT;
                                            11 AA.
     098623
                 PRELIMINARY;
TD
AC
     098623;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DΤ
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Cytochrome b (Fragment).
     PETB.
GN
     Prochlorococcus sp.
OS
     Bacteria; Cyanobacteria; Prochlorophytes; Prochlorococcaceae;
OC
OC
     Prochlorococcus.
     NCBI TaxID=1220;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Urbach E., Chisholm S.W.;
RA
     "Genetic diversity in Prochlorococcus populations flow cytometrically
RT
     sorted from the Sargasso Sea and Gulf Stream.";
RT
     Limnol. Oceanog. 43:1615-1630(1998).
RL
     EMBL; AF070168; AAD23221.1; -.
DR
     NON TER
                   1
                           1
FT
                11 AA; 1153 MW; 5F551A5CB05866D3 CRC64;
     SEQUENCE
SQ
                            9.1%; Score 1; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 6.8e+05;
  Best Local Similarity
                                                                   0; Gaps
                                                                               0;
                                 0; Mismatches
                                                       Indels
                                                    0;
  Matches
                 Conservative
             1;
            2 K 2
Qy
            4 K 4
RESULT 62
09R5P3
                                            11 AA.
     Q9R5P3
                  PRELIMINARY;
                                    PRT;
ID
AC
     Q9R5P3;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     SM2=NUCLEASE (Fragment).
DE
     Serratia marcescens.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Serratia.
OX
     NCBI TaxID=615;
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=92134331; PubMed=1663739;
RX
     Bannikova G.E., Blagova E.V., Dementiev A.A., Morgunova E.Yu.,
RA
     Mikchailov A.M., Shlyapnikov S.V., Varlamov V.P., Vainshtein B.K.;
RA
     "Two isoforms of Serratia marcescens nuclease. Crystallization and
RT
     preliminary X-ray investigation of the enzyme.";
RT'
     Biochem. Int. 24:813-822(1991).
RL
DR
     PIR; A27356; A27356.
FT
     NON TER
```

```
6DF18EE04AA045BB CRC64;
                        1179 MW;
     SEQUENCE
                11 AA;
SQ
                           9.1%; Score 1; DB 2; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 6.8e+05;
                                0; Mismatches
                                                                              0;
                                                   0;
                                                       Indels
                                                                  0; Gaps
             1; Conservative
 Matches
           11 D 11
Qу
              - 1
            1 D 1
Db
RESULT 63
P77404
                                   PRT;
                                           11 AA.
     P77404
                 PRELIMINARY;
ID
     P77404;
AC
     01-FEB-1997 (TrEMBLrel. 02, Created)
DT
     01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DT
     DNA sequence downstream of the ECOPRRI HSD locus (Fragment).
DE
GN
     HSDR.
     Escherichia coli.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=97206151; PubMed=9157244;
RX
     Tyndall C., Lehnherr H., Sandmeier U., Kulik E., Bickle T.A.;
RA
     "The type IC hsd loci of the enterobacteria are flanked by DNA with
RT
     high homology to the phage P1 genome: implications for the evolution
RT
     and spread of DNA restriction systems.";
RT
     Mol. Microbiol. 23:729-736(1997).
RL
     EMBL; X98145; CAA66840.1; -.
DR
     EMBL; X98144; CAA66839.1; -.
DR
     NON TER
                   1
                          1.
FT
                11 AA; 1259 MW; 714AB092A4072734 CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 6.8e+05;
  Best Local Similarity
                                                                               0;
                                                    0;
                                                        Indels
                                                                  0;
                                                                      Gaps
             1; Conservative 0; Mismatches
  Matches
            2 K 2
Qу
            1 K 1
Db
RESULT 64
Q9RQ60
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q9RQ60
AC
     09R060;
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Acetohydroxy acid synthase small subunit (Fragment).
DΕ
GN
     ILVH.
OS
     Buchnera aphidicola.
```

11

NON TER

FT

11

```
Enterobacteriaceae; Buchnera.
OC
     NCBI TaxID=9;
OX
RN
     [1]
RΡ
     SEQUENCE FROM N.A.
    MEDLINE=20022990; PubMed=10555290;
RX
     Clark M.A., Moran N.A., Baumann P.;
RA
     "Sequence evolution in bacterial endosymbionts having extreme base
RT
     compositions.";
RT
    Mol. Biol. Evol. 16:1586-1598(1999).
RL
     EMBL; AF129503; AAF13796.1; -.
DR
     NON TER
                 11
FT
                         11
                11 AA; 1330 MW; 0E89EF1E2045B050 CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.8e+05;
 Matches
            1; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            2 K 2
Qу
              2 K 2
Db
RESULT 65
Q93RM6
    Q93RM6
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
AC
     Q93RM6;
DT
     01-DEC-2001 (TrEMBLrel. 19, Created)
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Lipophilic protein affecting bacterial lysis and methicillin
DE
DE
     resistance (Fragment).
OS
     Staphylococcus aureus.
OC
     Bacteria; Firmicutes; Bacillales; Staphylococcus.
OX
    NCBI TaxID=1280;
RN
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=SRM551;
    Maki H.;
RA
     "Upstream region of llm gene.";
RT
RL
     Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AB000542; BAB62080.1; -.
FT
     NON TER
                 11
                         11
     SEQUENCE
                11 AA; 1191 MW; 4AC763F4C2C72727 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 6.8e+05;
 Matches
            1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            1 A 1
Qу
Db
            8 A 8
RESULT 66
Q47600
     Q47600
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
```

Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;

OC

```
Q47600;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
     REase protein (Fragment).
DΕ
     REASE.
GN
     Escherichia coli.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
OX
    NCBI TaxID=562;
RN
     [1]
     SEQUENCE FROM N.A.
RP
    MEDLINE=91139577; PubMed=1995588;
RX
     Tao T., Bourne J.C., Blumenthal R.M.;
RA
     "A family of regulatory genes associated with type II restriction-
RT
     modification systems.";
RT
     J. Bacteriol. 173:1367-1375(1991).
RL
     EMBL; M63619; AAA24556.1; -.
DR
     NON TER
                  11
FT
                         11
     SEQUENCE
                11 AA; 1232 MW; 63175479572AB5A4 CRC64;
SQ
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 6.8e+05;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0:
 Matches
             1; Conservative
                                 0; Mismatches
                                                  0; Indels
           11 D 11
Qу
Db
            6 D 6
RESULT 67
08RMI8
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
ID
    Q8RMI8
     Q8RMI8;
AC
     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     ErmB (Fragment).
     ERMB.
GN
OS
     Enterococcus hirae.
OG
     Plasmid pMKH1.
     Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
OC
OX
     NCBI TaxID=1354;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Borgen K., Sorum M., Wasteson Y., Kruse H., Oppegaard H.;
RA
     "Genetic linkage between ermB and vanA in Enterococcus hirae of
RT
RT
     poultry origin.";
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF493942; AAM18554.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
KW
     Plasmid.
FT
     NON TER
                   1
                          1
     SEQUENCE
                11 AA; 1359 MW; 08A7A8AA49C7273B CRC64;
SQ
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 6.8e+05;
  Best Local Similarity
```

```
0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
           1; Conservative
 Matches
            2 K 2
Qу
          11 K 11
Db
RESULT 68
087882
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
    087882
    087882;
AC
     01-NOV-1998 (TrEMBLrel. 08, Created)
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DT
     Alkyl hydroperoxide reductase (Fragment).
DΕ
GN
    AHPC.
    Mycobacterium xenopi.
OS
     Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
OC
     Corynebacterineae; Mycobacteriaceae; Mycobacterium.
OC
     NCBI TaxID=1789;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=ATCC19250;
     MEDLINE=98406038; PubMed=9733688;
RX
     Pagan-Ramos E., Song J., McFalone M., Mudd M.H., Deretic V.;
RA
     "Oxidative stress response and characterization of the oxyR-ahpC and
RT
     furA-katG loci in Mycobacterium marinum.";
RT
     J. Bacteriol. 180:4856-4864(1998).
RL
     EMBL; U43810; AAC61663.1; -.
DR
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Qу
            2 A 2
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Phosphoribosylpyrophosphate synthetase (Fragment).
DE
     PRS.
GN
     Candidatus Tremblaya princeps.
os
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OC
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OX
RN
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     SEQUENCE FROM N.A.
RP
     MEDLINE=22083449; PubMed=12088995;
RX
     Baumann L., Thao M.L., Hess J.M., Johnson M.W., Baumann P.;
RA
```

```
"The Genetic Properties of the Primary Endosymbionts of Mealybugs
     Differ from Those of Other Endosymbionts of Plant Sap-Sucking
RT
     Insects.";
RT
     Appl. Environ. Microbiol. 68:3198-3205(2002).
RL
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Qy
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RESULT 70
P71228
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AC
     01-FEB-1997 (TrEMBLrel. 02, Created)
DT
     01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DT
     Nitrate/nitrite sensor transmitter (Fragment).
DE.
GN
     NARO.
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
OX
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RN
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RP
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     STRAIN=K-12;
RC
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     MEDLINE=92374842; PubMed=1508040;
     Chiang R.C., Cavicchioli R., Gunsalus R.P.;
RA
     "Identification and characterization of narQ, a second nitrate sensor
RT
     for nitrate-dependent gene regulation in Escherichia coli.";
RT
     Mol. Microbiol. 6:1913-1923(1992).
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RN
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     SEQUENCE FROM N.A.
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RX
     MEDLINE=97113461; PubMed=8955321;
     Cavicchioli R., Kolesnikow T., Chiang R.C., Gunsalus R.P.;
RA
     "Characterization of the aegA locus of Escherichia coli: control of
RT
     gene expression in response to anaerobiosis and nitrate.";
RT
RL
     J. Bacteriol. 178:6968-6974(1996).
     EMBL; L34011; AAB46943.1; -.
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Qу
Db
             4 K 4
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RT

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     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
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     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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     Adhesin (Fragment).
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GN
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     Escherichia coli.
OS
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OC
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     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DΕ
     Leader peptide.
OS
    Escherichia coli.
OC
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OC
     Enterobacteriaceae; Escherichia.
OX
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RN
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RA
     Faber F., van Giezen M., Van Gorcom R.F.M., Harder W.;
RT
     "Identification of two Escherichia coli K12 proteins which are induced
RT
     in response to pollutant stress.";
     Submitted (APR-1996) to the EMBL/GenBank/DDBJ databases.
RL
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RC
     STRAIN=K12;
RX
     MEDLINE=85134883; PubMed=6396419;
RA
     Hudson G.S., Davidson B.E.;
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```
"Nucleotide sequence and transcription of the phenylalanine and
RT
     tyrosine operons of Escherichia coli K12.";
RT
     J. Mol. Biol. 180:1023-1051(1984).
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     EMBL; Z70523; CAA94435.1; -.
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Qу
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DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Tryptophanyl-tRNA synthetase (Fragment).
DE
GN
     TRPS.
     Carsonella ruddii.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Candidatus Carsonella.
OC
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OX
RN
RP
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     MEDLINE=20336438; PubMed=10877784;
RX
     Thao M.L., Moran N.A., Abbot P., Brennan E.B., Burckhardt D.H.,
RA
RA
     Baumann P.;
     "Cospeciation of psyllids and their primary prokaryotic
RT
RT
     endosymbionts.";
RL
     Appl. Environ. Microbiol. 66:2898-2905(2000).
RN
     [2]
RP
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RX
     MEDLINE=21125546; PubMed=11222582;
     Clark M.A., Baumann L., Thao M.L., Moran N.A., Baumann P.;
RA
     "Degenerative Minimalism in the Genome of a Psyllid Endosymbiont.";
RT
     J. Bacteriol. 183:1853-1861(2001).
RL
     EMBL; AF211126; AAK15376.1; -.
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Qу
Db
            7 K 7
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
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DE
     Hypothetical protein (Fragment).
     Streptococcus lutetiensis.
OS
     Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC
     Streptococcus.
OC
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RP
     STRAIN=5-F9; TRANSPOSON=Tn5382-like;
RC
     Dahl K.H., Sundsfjord A.;
RA
     "vanB2 operons linked to Tn5382-like elements in Streptococcus strains
RT
     from veal calves.";
RT ·
     Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
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DR
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Qγ
              -1
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     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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     Acetyl ornithine deacetylase (Fragment).
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GN
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OC
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OC
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RP
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     MEDLINE=83064529; PubMed=6292860;
RX
RA
     Charlier D., Piette J., Glansdorff N.;
RT
     "IS3 can function as a mobile promoter in E. coli.";
     Nucleic Acids Res. 10:5935-5948(1982).
RL
DR
     EMBL; J01589; AAA23485.1; -.
DR
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Best Local Similarity 100.0%; Pred. No. 6.8e+05;
Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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| Db 3 N 3

Search completed: April 8, 2004, 15:46:08
Job time : 28.7692 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 5.15385 Seconds

(without alignments)

111.135 Million cell updates/sec

Title: US-09-787-443A-17

Perfect score: 11

Sequence: 1 AKKEKPNKPND 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 141681 seqs, 52070155 residues

Word size :

Total number of hits satisfying chosen parameters:

70

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: SwissProt 42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	3	27.3	11	1	TKNA RANRI	 P29207	rana ridibu
2	3	27.3	11.	1	TKND RANCA		rana catesb
3	3	27.3	11	1	TKN PHYFU		physalaemus
4	2	18.2	11	1	ASL2 BACSE		bacteroides
5	2	18.2	11	1	CSI5 BACSU	P81095	bacillus su
6	2	18.2	11	1	EFG CLOPA	P81350	clostridium
7	2	18.2	11	1	FAR9 CALVO		calliphora
8	2	18.2	11	1	HS70 PINPS	P81672	pinus pinas
9	2	18.2	11	1	OAIF SARBU		sarcophaga
10	2	18.2	11	1	Q20A COMTE		comamonas t
11	2	18.2	11	1	TKN1 UPEIN	P82026	uperoleia i
12	2	18.2	11	1	TKN1 UPERU	P08612	uperoleia r
13	2	18.2	11	1	TKN2 PSEGU		pseudophryn
14	2	18.2	11	1	TKN3 PSEGU	P42988	pseudophryn
15	2	18.2	11	1	TKN4 PSEGU		pseudophryn
16	2	18.2	11	1	TKN5 PSEGU		pseudophryn
17	2	18.2	11	1	TKNA_GADMO	P28498	gadus morhu

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18	2	18.2	11	1	TKNA_HORSE		90 equus cabal
19	2	18.2	11	1	TKNA_ONCMY	P284	99 oncorhynchu
20	2	18.2	11	1	TKNA_RANCA	P226	88 rana catesb
21	2	18.2	11	1	TKNA SCYCA	P413	33 scyliorhinu
22	1	9.1	11	1	ANGT CRIGE		37 crinia geor
23	1	9.1	11	1	ASL1 BACSE		46 bacteroides
24	1	9.1	11	1	BPP3 BOTIN	P304	23 bothrops in
25	1	9.1	11	1	BPP4 BOTIN		24 bothrops in
26	1	9.1	11	1	BPPB AGKHA		21 agkistrodon
27	1	9.1	11	1	BPP AGKHP		62 agkistrodon
28	1	9.1	11	1	BRK MEGFL		97 megascolia
29	1	9.1	11	1	CA21 LITCI		87 litoria cit
30	1	9.1	11	1	CA22 LITCI		88 litoria cit
31	1	9.1	11.	1	CA31 LITCI		89 litoria cit
32	1	9.1	11.	1	CA32 LITCI		90 litoria cit
33	1	9.1	11	1	CA41 LITCI		91 litoria cit
34	1	9.1	11	1	CA41_LITCI		
35							92 litoria cit
	1	9.1	11	1	CEP1_ACHFU		90 achatina fu
36	1	9.1	11	1	CORZ_PERAM		96 periplaneta
37	1	9.1	11	1	COXA_CANFA		01 canis famil
38	1	9.1	11	1	CX5A_CONAL		48 conus aulic
39	1	9.1	11	1	CX5B_CONAL		49 conus aulic
40	1	9.1	11	1	CXL1_CONMR		07 conus marmo
41	1	9.1	11	1	ES1_RAT		71 rattus norv
42	1	J. I	11	1	FAR6_PENMO		21 penaeus mon
43	1	9.1	11	1	LADD_ONCMY	P810	18 oncorhynchu
44	1	9.1	11	1	LPW_THETH	P056	24 thermus the
45	1	9.1	11	1	LSK1_LEUMA	P044	28 leucophaea
46	1	9.1	11	1	LSKP_PERAM	P368	85 periplaneta
47	1	9.1	11	1	MHBI KLEPN	P805	80 klebsiella
48	1	9.1	11	1	MLG THETS	P419	89 theromyzon
49	1	9.1	11	1	MORN HUMAN	P011	63 homo sapien
50	1	9.1	11	1	NUHM CANFA		20 canis famil
51	1	9.1	11	1	NXSN PSETE	P590	72 pseudonaja
52	1	9.1	11	1	PKC1 CARMO		84 carausius m
53	1	9.1	11	1	PQQC PSEFL		73 pseudomonas
54	1	9.1	11	1	PVK1_PERAM		37 periplaneta
55	1	9.1	11	1	RANC RANPI		51 rana pipien
56	1	9.1	11	1	RE41 LITRU		74 litoria rub
57	1	9.1	11	1			41 conopholis
58	1	9.1	11	1	RRPL CHAV		79 chandipura
59	1	9.1	11	1	RS30 ONCMY		28 oncorhynchu
60	1	9.1	11	1	_		31 proteus vul
	1				T2P1_PROVU		_
61	1	9.1	11	1	TIN1_HOPTI		51 hoplobatrac
62		9.1	11	1	TIN4_HOPTI		54 hoplobatrac
63	1	9.1	11	1	TKC2_CALVO		18 calliphora
64	1	9.1	11	1	TKN1_PSEGU		86 pseudophryn
65	1	9.1	11	1	TKN2_UPERU		16 uperoleia r
66	1	9.1	11	1	TKNA_CHICK		50 gallus gall
67	1	9.1	11	1	TKN_ELEMO		93 eledone mos
68	1	9.1	11	1	UF05_MOUSE		43 mus musculu
69	1	9.1	11	1	ULAG_HUMAN		33 homo sapien
70	1	9.1	11	1	UXB2_YEAST	P990	13 saccharomyc

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RESULT 1
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ID
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     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranakinin (Substance-P-related peptide).
DE
     Rana ridibunda (Laughing frog) (Marsh frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
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RP
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RC
     TISSUE=Brain;
     MEDLINE=92044543; PubMed=1658233;
RX
     O'Harte F., Burcher E., Lovas S., Smith D.D., Vaudry H., Conlon J.M.;
RA
     "Ranakinin: a novel NK1 tachykinin receptor agonist isolated with
RT
     neurokinin B from the brain of the frog Rana ridibunda.";
RT
     J. Neurochem. 57:2086-2091(1991).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     InterPro; IPR002040; Tachy Neurokinin.
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
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DR
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     Tachykinin; Neuropeptide; Amidation.
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DΤ
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Ranatachykinin D (RTK D).
OS
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OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
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RP
RC.
     TISSUE=Intestine;
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RX
RA
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
     brain and intestine.";
RT
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RL
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RP
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RC
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RX
RA
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
RT
     intestine.";
     Regul. Pept. 46:81-88(1993).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; D61033; D61033.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
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DR
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KW
FT
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                         11
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                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            5 KPN 7
              111
Dh
            1 KPN 3
RESULT 3
TKN PHYFU
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TD
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P08615;
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Physalaemin.
     Physalaemus fuscumaculatus (Neotropical frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Leptodactylidae;
OC
     Leptodactylinae; Physalaemus.
OC
     NCBI TaxID=8378;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion:
RX
    MEDLINE=66076612; PubMed=5857249;
RA
     Erspamer V., Anastasi A., Bertaccini G., Cei J.M.;
RT
     "Structure and pharmacological actions of physalaemin, the main
```

```
active polypeptide of the skin of Physalaemus fuscumaculatus.";
RT
RL
     Experientia 20:489-490(1964).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; S07201; S07201.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
ΚW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                  11
FT
                         11
                                  AMIDATION.
     SEQUENCE
SQ
                11 AA;
                        1283 MW; 3293693E59C33457 CRC64;
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
                          100.0%; Pred. No. 1.7e+03;
  Best Local Similarity
  Matches
             3; Conservative
                              0; Mismatches
                                                  0;
                                                                              0;
                                                        Indels
                                                                  0; Gaps
            6 PNK 8
Qу
              \perp
            4 PNK 6
Db
RESULT 4
ASL2 BACSE
     ASL2 BACSE
                    STANDARD;
ID
                                   PRT;
                                            11 AA.
AC
     P83147;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Acharan sulfate lyase 2 (EC 4.2.2.-) (Fragment).
os
     Bacteroides stercoris.
OC
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
     Bacteroidaceae; Bacteroides.
OX
     NCBI TaxID=46506;
RN
     [1]
RP
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RC
     STRAIN=HJ-15;
     MEDLINE=21223019; PubMed=11322884;
RX
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RA
RT
     "Purification and characterization of acharan sulfate lyases, two
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
     Eur. J. Biochem. 268:2635-2641(2001).
RL
CC
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and lead.
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
         mercaptoethanol.
CC
     -!- SUBUNIT: Monomer.
CC.
     -!- PTM: The N-terminus is blocked.
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
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NON TER
FT
                   1
                           1
                  11
FT
     NON TER
                          11
     SEQUENCE
SQ
                11 AA; 1195 MW; D79D897C7AA451AD CRC64;
                           18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity
                           100.0%; Pred. No. 1.5e+04;
                                 0; Mismatches
                                                                                0;
  Matches
             2; Conservative
                                                    0;
                                                        Indels
                                                                   0; Gaps
           10 ND 11
Qу
              \mathbf{H}
            6 ND 7
Db
RESULT 5
CSI5 BACSU
     CSI5 BACSU
                                    PRT;
                                            11 AA.
ID
                    STANDARD;
     P81095;
AC
     15-JUL-1998 (Rel. 36, Created)
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Cold shock protein CSI5 (11 kDa cold shock protein) (Fragment).
DE
     Bacillus subtilis.
OS
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
     NCBI TaxID=1423;
OX
RN
     [1]
RΡ
     SEQUENCE.
RC
     STRAIN=168 / JH642;
     Graumann P.L., Schmid R., Marahiel M.A.;
RA
     Submitted (OCT-1997) to Swiss-Prot.
RL
RN
     [2]
     CHARACTERIZATION.
RP
RC
     STRAIN=168 / JH642;
     MEDLINE=96345629; PubMed=8755892;
RX
     Graumann P., Schroeder K., Schmid R., Marahiel M.A.;
RA
     "Cold shock stress-induced proteins in Bacillus subtilis.";
RT
     J. Bacteriol. 178:4611-4619(1996).
RL
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
     -!- INDUCTION: In response to low temperature.
CC
     -!- CAUTION: Could not be found in the genome of B. subtilis 168.
CC
     NON TER
FT
                  11
                          11
     SEQUENCE
                11 AA; 1360 MW; 15F6ECEE6322C330 CRC64;
SQ
  Query Match
                           18.2%; Score 2; DB 1; Length 11;
                           100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
  Matches
             2; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                   0; Gaps
                                                                                0;
            5 KP 6
Qv
              11
Db
            7 KP 8
RESULT 6
EFG CLOPA
     EFG CLOPA
                                    PRT;
                                            11 AA.
ID
                    STANDARD;
     P81350;
AC
DT
     15-JUL-1998 (Rel. 36, Created)
```

Lyase; Heparin-binding.

KW

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15-JUL-1998 (Rel. 36, Last sequence update)
DΤ
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Elongation factor G (EF-G) (CP 5) (Fragment).
DE
GN
     Clostridium pasteurianum.
OS
     Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae;
OC
OC
     Clostridium.
    NCBI TaxID=1501;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     STRAIN=W5;
    MEDLINE=98291870; PubMed=9629918;
RX
RA
     Flengsrud R., Skjeldal L.;
     "Two-dimensional gel electrophoresis separation and N-terminal
RT
RT
     sequence analysis of proteins from Clostridium pasteurianum W5.";
     Electrophoresis 19:802-806(1998).
RL
     -!- FUNCTION: This protein promotes the GTP-dependent translocation of
CC
         the nascent protein chain from the A-site to the P-site of the
CC
CC
         ribosome.
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
     -!- SIMILARITY: Belongs to the GTP-binding elongation factor family.
CC
         EF-G/EF-2 subfamily.
CC
     InterPro; IPR000795; EF GTPbind.
DR
     PROSITE; PS00301; EFACTOR GTP; PARTIAL.
DR
     Elongation factor; Protein biosynthesis; GTP-binding.
KW
    NON TER
FT
                  11
                         11
SO
     SEQUENCE
                11 AA; 1337 MW; 412E71F1D9C33B17 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                  0; Gaps
                                                                               0;
 Matches
             2; Conservative
                                                    0; Indels
            4 EK 5
Qу
              5 EK 6
Db
RESULT 7
FAR9 CALVO
     FAR9 CALVO
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P41864;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
     01-NOV-1995 (Rel. 32, Last annotation update)
DT
     CalliFMRFamide 9.
DΕ
     Calliphora vomitoria (Blue blowfly).
OS
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Calliphoridae; Calliphora.
OC
OX
     NCBI TaxID=27454;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Thoracic ganglion;
     MEDLINE=92196111; PubMed=1549595;
RX
     Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA
     Rehfeld J.F., Thorpe A.;
RA
     "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT
```

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RT
     neuropeptides (designated calliFMRFamides) from the blowfly
     Calliphora vomitoria.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
RL
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
CC
         family.
DR
     PIR; I41978; I41978.
KW
     Neuropeptide; Amidation.
FT
     MOD RES
                  11
                          11
                                   AMIDATION.
     SEQUENCE
                        1359 MW;
SQ
                11 AA;
                                  8160CE46CAA44321 CRC64;
  Query Match
                           18.2%;
                                   Score 2; DB 1; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.5e+04;
             2; Conservative
                                  0; Mismatches
                                                                               0;
                                                    0; Indels
                                                                   0; Gaps
           10 ND 11
Qу
              \perp
            6 ND 7
Db
RESULT 8
HS70 PINPS
     HS70 PINPS
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P81672;
DT
     15-JUL-1999 (Rel. 38, Created)
DT
     15-JUL-1999 (Rel. 38, Last sequence update)
     15-MAR-2004 (Rel. 43, Last annotation update)
DΤ
DE
     Heat shock 70 kDa protein (Fragment).
OS
     Pinus pinaster (Maritime pine).
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Pinus.
OX
     NCBI TaxID=71647;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Needle;
RX
     MEDLINE=99274088; PubMed=10344291;
RA
     Costa P., Pionneau C., Bauw G., Dubos C., Bahrman N., Kremer A.,
RA
     Frigerio J.-M., Plomion C.;
RT
     "Separation and characterization of needle and xylem maritime pine
RT
     proteins.";
RL
     Electrophoresis 20:1098-1108(1999).
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this protein
CC
         (spot N164) is: 5.4, its MW is: 73 kDa.
CC
     -!- SIMILARITY: Belongs to the heat shock protein 70 family.
     ATP-binding; Heat shock; Multigene family.
KW
FT
     NON TER
                   1
                           1
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1228 MW;
                                   037C1BE8DAA44DD0 CRC64;
  Query Match
                           18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+04;
  Matches
             2; Conservative 0; Mismatches
                                                    0;
                                                                       Gaps
                                                                               0;
                                                       Indels
                                                                   0;
           10 ND 11
Qу
              \mathbf{I}
Db
            6 ND 7
```

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RESULT 9
OAIF SARBU
     OAIF SARBU
                     STANDARD:
                                     PRT:
ID
                                             11 AA.
     P83518;
AC
DT
     10-OCT-2003 (Rel. 42, Created)
     10-OCT-2003 (Rel. 42, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ovary-derived ACE interactive factor (Neb-ODAIF) [Contains: Neb-
DΕ
     ODAIF(1-9); Neb-ODAIF(1-7)].
DE
     Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Sarcophagidae; Sarcophaga.
OX
     NCBI TaxID=7385;
RN
     [1]
     SEQUENCE, SYNTHESIS, CHARACTERIZATION, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Ovary;
RX
     MEDLINE=22272747; PubMed=12383874;
RA
     Vandingenen A., Hens K., Baggerman G., Macours N., Schoofs L.,
RA
     De Loof A., Huybrechts R.;
     "Isolation and characterization of an angiotensin converting enzyme
RT
RT
     substrate from vitellogenic ovaries of Neobellieria bullata.";
     Peptides 23:1853-1863(2002).
RL
     -!- FUNCTION: Substrate for angiotensin converting enzyme (ACE) in
CC
CC
         vitro.
     -!- PTM: ACE hydrolyzes Neb-ODAIF by sequentially cleaving off two C-
CC
CC
         terminal dipeptides.
     -!- MASS SPECTROMETRY: MW=1312.7; METHOD=MALDI; RANGE=1-11.
CC
CC
     -!- SIMILARITY: To the N-terminal part of insect vitellogenins.
                          11
FT
     PEPTIDE
                    1
                                   NEB-ODAIF.
FT
     PEPTIDE
                    1
                           9
                                   NEB-ODAIF(1-9).
FT
                           7
     PEPTIDE
                    1
                                   NEB-ODAIF (1-7).
SQ
     SEQUENCE
                11 AA; 1314 MW;
                                   4E114BB566C5A763 CRC64;
  Query Match
                           18.2%;
                                   Score 2; DB 1; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.5e+04;
  Matches
             2; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                         Gaps
                                                                                 0;
            7 NK 8
Qу
              11
            1 NK 2
Db
RESULT 10
Q2OA COMTE
ID
     Q2OA COMTE
                     STANDARD;
                                     PRT;
                                             11 AA.
AC
     P80464;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
DT
DT
DE
     Quinoline 2-oxidoreductase, alpha chain (EC 1.3.99.17) (Fragment).
     Comamonas testosteroni (Pseudomonas testosteroni).
OS
OC
     Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC
     Comamonadaceae; Comamonas.
OX
     NCBI TaxID=285;
RN
     [1]
RP
     SEQUENCE.
```

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RC
     STRAIN=63;
     MEDLINE=96035889; PubMed=7556204;
RX
     Schach S., Tshisuaka B., Fetzner S., Lingens F.;
RA
     "Quinoline 2-oxidoreductase and 2-oxo-1,2-dihydroquinoline 5,6-
RT
     dioxygenase from Comamonas testosteroni 63. The first two enzymes in
RT
     quinoline and 3-methylquinoline degradation.";
RT
     Eur. J. Biochem. 232:536-544(1995).
RL
     -!- FUNCTION: Converts (3-methyl-)-quinoline to (3-methyl-)2-oxo-
CC
CC
         1,2-dihydroquinoline.
     -!- CATALYTIC ACTIVITY: Quinoline + acceptor + H(2)0 = isoquinolin-
CC
         1(2H)-one + reduced acceptor.
CC
     -!- COFACTOR: FAD, molybdenum and iron-sulfur.
CC
     -!- PATHWAY: Degradation of quinoline and (3-methyl-)quinoline; first
CC
CC
     -!- SUBUNIT: Heterohexamer of two alpha chains, two beta chains, and
CC
         two gamma chains (Probable).
CC
     PIR; S66606; S66606.
DR
     Oxidoreductase; Flavoprotein; FAD; Molybdenum.
KW
     NON TER
                  11
                         11
FT
                        1213 MW; 869094322B1DC2CA CRC64;
     SEQUENCE
SQ
                11 AA;
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
                                 0; Mismatches
  Matches
             2; Conservative
            1 AK 2
Qу
              1 AK 2
Db
RESULT 11
TKN1 UPEIN
ID
     TKN1 UPEIN
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P82026;
DT
     30-MAY-2000 (Rel. 39, Created)
DT
     30-MAY-2000 (Rel. 39, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Uperin 1.1.
     Uperoleia inundata (Floodplain toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Uperoleia.
     NCBI TaxID=104953;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     Bradford A.M., Raftery M.J., Bowie J.H., Tyler M.J., Wallace J.C.,
RA
     Adams G.W., Severini C.;
RA
     "Novel uperin peptides from the dorsal glands of the australian
RT
RT
     floodplain toadlet Uperoleia inundata.";
     Aust. J. Chem. 49:475-484(1996).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
```

```
-!- MASS SPECTROMETRY: MW=1208; METHOD=FAB.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                  11
                         11
FT
                                   AMIDATION.
     SEQUENCE
                11 AA; 1226 MW;
                                  3293693E59CDD457 CRC64;
SQ
  Query Match
                          18.2%;
                                  Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
  Matches
                                 0; Mismatches
                                                    0; Indels
             2; Conservative
                                                                  0; Gaps
                                                                               0;
            6 PN 7
Qy
              11
            4 PN 5
Db
RESULT 12
TKN1 UPERU
     TKN1 UPERU
                                            11 AA.
ID
                    STANDARD;
                                    PRT:
AC
     P08612;
     01-AUG-1988 (Rel. 08, Created)
DТ
     01-FEB-1994 (Rel. 28, Last sequence update)
DΤ
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Uperolein.
OS
     Uperoleia rugosa (Wrinkled toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI_TaxID=8368;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=75131227; PubMed=1120493;
RA
     Anastasi A., Erspamer V., Endean R.;
     "Structure of uperolein, a physalaemin-like endecapeptide occurring
RT
     in the skin of Uperoleia rugosa and Uperoleia marmorata.";
RT
     Experientia 31:394-395(1975).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
```

```
SEOUENCE
                11 AA; 1252 MW; 32867C3E59CDD457 CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+04;
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            6 PN 7
Qy
              1.1
            4 PN 5
Db
RESULT 13
TKN2 PSEGU
     TKN2 PSEGU
                                           11 AA.
ID
                    STANDARD;
                                   PRT;
AC
     P42987;
     01-NOV-1995 (Rel. 32, Created)
DT
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Kassinin-like peptide K-II (PG-KII).
     Pseudophryne guentheri (Guenther's toadlet).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
    Myobatrachinae; Pseudophryne.
     NCBI TaxID=30349;
ÓΧ
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Skin secretion;
RC
RX
    MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
    -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; C60409; C60409.
ĎR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1246 MW; 3A247C37C9CB1AB7 CRC64;
SO
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
 Matches
             2; Conservative 0; Mismatches
                                                   0;
                                                                              0;
                                                       Indels
                                                                  0; Gaps
```

```
Db
```

TKN4 PSEGU

TKN4 PSEGU

STANDARD;

```
RESULT 14
TKN3 PSEGU
                                            11 AA.
     TKN3 PSEGU
                    STANDARD;
                                   PRT;
     P42988;
AC.
     01-NOV-1995 (Rel. 32, Created)
DТ
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-III (PG-KIII).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC.
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
     SEOUENCE.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; D60409; D60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                           1
     MOD RES
                  11
                         11
                                   AMIDATION.
FT
                                  3DBA7C37C9CB1457 CRC64;
     SEQUENCE
                11 AA;
                        1268 MW;
SO
  Query Match
                           18.2%;
                                   Score 2; DB 1; Length 11;
                           100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
                                                                       Gaps
                                                                               0;
             2; Conservative
                                  0;
                                     Mismatches
                                                    0; Indels
  Matches
Qу
            6 PN 7
              11
Db
            4 PN 5
RESULT 15
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PRT;

11 AA.

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P42989;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΤ
DΕ
     Substance P-like peptide I (PG-SPI).
     Pseudophryne quentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
     the Australian frog Pseudophryne guntheri.";
RT
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; E60409; E60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                   AMIDATION.
SQ
     SEQUENCE
                11 AA;
                        1294 MW;
                                  3A247C2CC9CB1AB7 CRC64;
  Query Match
                           18.2%; Score 2; DB 1; Length 11;
                           100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
                                                                               0;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0; Gaps
            6 PN 7
Qу
              \perp
            2 PN 3
Db
RESULT 16
TKN5 PSEGU
ID
     TKN5 PSEGU
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P42990;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Substance P-like peptide II (PG-SPII).
OS
     Pseudophryne guentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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```
Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OC
     NCBI TaxID=30349;
OX
RN
     [1]
     SEOUENCE.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; F60409; F60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                  11
                         11
                                   AMIDATION.
FT
SO
     SEQUENCE
                11 AA; 1293 MW;
                                  3A247C2CC9CB1457 CRC64;
  Query Match
                          18.2%;
                                  Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+04;
  Matches
             2; Conservative
                                  0; Mismatches
                                                    0;
                                                        Indels
                                                                   0;
                                                                      Gaps
                                                                               0;
            6 PN 7
Qу
              Db
            2 PN 3
RESULT 17
TKNA GADMO
ID
     TKNA GADMO
                    STANDARD;
                                    PRT:
                                            11 AA.
     P28498;
AC
DT
     01-DEC-1992 (Rel. 24, Created)
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P.
OS
     Gadus morhua (Atlantic cod).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
OC
     Acanthomorpha; Paracanthopterygii; Gadiformes; Gadidae; Gadus.
OX
     NCBI TaxID=8049;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
RX
     MEDLINE=92298992; PubMed=1376687;
```

```
Jensen J., Conlon J.M.;
RA
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
RT
     of the cod and trout.";
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; S23306; S23306.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                  AMIDATION (BY SIMILARITY).
                  11
                         11
FT
     MOD RES
                11 AA; 1315 MW; 214860D759D6C6C7 CRC64;
     SEOUENCE
SO
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                                   0; Gaps
                                                    0; Indels
             2; Conservative
            5 KP 6
Qу
              \perp
Db
            1 KP 2
RESULT 18
TKNA HORSE
     TKNA HORSE
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P01290;
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DF.
     TAC1 OR NKNA OR TAC2 OR NKA.
GN
     Equus caballus (Horse), and
OS
os
     Cavia porcellus (Guinea pig).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OC
     NCBI TaxID=9796, 10141;
OX
     [1]
RN
RP
     SEQUENCE.
     SPECIES=Horse;
RC
     Studer R.O., Trzeciak A., Lergier W.;
RA
     "Isolation and amino-acid sequence of substance P from horse
RT
RT
     intestine.";
     Helv. Chim. Acta 56:860-866(1973).
RL
RN
     [2]
RP
     SEQUENCE.
RC
     SPECIES=C.porcellus;
RX
     MEDLINE=90044685; PubMed=2478925;
RA
     Murphy R.;
     "Primary amino acid sequence of guinea-pig substance P.";
RT
     Neuropeptides 14:105-110(1989).
RL
```

```
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; A01558; SPHO.
DR
DR
     PIR; A60654; A60654.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
     MOD RES
                         11
                  1.1
                                   AMIDATION.
     SEQUENCE
SQ
                11 AA; 1349 MW; 3E757FE3C9D6C6C7 CRC64;
  Query Match
                           18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.5e+04;
                                  0; Mismatches
             2; Conservative
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            5 KP 6
Qy
              11
Db
            3 KP 4
RESULT 19
TKNA ONCMY
ID
     TKNA ONCMY
                    STANDARD;
                                    PRT:
                                            11 AA.
AC
     P28499;
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
     NCBI TaxID=8022;
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Brain;
RC
RX
     MEDLINE=92298992; PubMed=1376687;
RA
     Jensen J., Conlon J.M.;
RT
     "Substance-P-related and neurokinin-A-related peptides from the brain
     of the cod and trout.";
RT
RL
     Eur. J. Biochem. 206:659-664(1992).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; S23308; S23308.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
```

```
SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
                         11
                                   AMIDATION (BY SIMILARITY).
     SEQUENCE
SO
                11 AA;
                        1358 MW;
                                  214860DEC9D6D1F7 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+04;
                                 0; Mismatches
             2; Conservative
                                                    0; Indels
                                                                               0;
                                                                   0; Gaps
Qу
            5 KP 6
              11
Db
            1 KP 2
RESULT 20
TKNA RANCA
ID
     TKNA RANCA
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P22688;
     01-AUG-1991 (Rel. 19, Created)
DT
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranatachykinin A (RTK A).
DE
     Rana catesbeiana (Bull frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8400;
OX
RN
     [1]
RP
     SEQUENCE, AND SYNTHESIS.
RC
     TISSUE=Brain, and Intestine;
RX
    MEDLINE=91254337; PubMed=2043143;
RA
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
RT
     brain and intestine.";
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RL
RN
     [2]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
    MEDLINE=94023216; PubMed=8210506;
RX
RA
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RT
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
     intestine.";
     Regul. Pept. 46:81-88(1993).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; A61033; A61033.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
DR
    SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation.
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
```

```
11 AA; 1311 MW; 200D60CC59D40AB7 CRC64;
SO
     SEQUENCE
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
                              0; Mismatches
                                                                              0;
           2; Conservative
                                                    0; Indels
                                                                      Gaps
            5 KP 6
Qу
              11
            1 KP 2
Db
RESULT 21
TKNA SCYCA
     TKNA SCYCA
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
AC
     P41333;
     01-FEB-1995 (Rel. 31, Created)
DT
     01-FEB-1995 (Rel. 31, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DE
     Scyliorhinus canicula (Spotted dogfish) (Spotted catshark).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC
     Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes;
OC
     Scyliorhinidae; Scyliorhinus.
OC
     NCBI TaxID=7830;
OX
RN
     [1]
     SEOUENCE.
RΡ
     TISSUE=Brain;
RC
     MEDLINE=93292508; PubMed=7685693;
RX
     Waugh D., Wang Y., Hazon N., Balment R.J., Conlon J.M.;
RA
     "Primary structures and biological activities of substance-P-related
RT
RT
     peptides from the brain of the dogfish, Scyliorhinus canicula.";
     Eur. J. Biochem. 214:469-474(1993).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; S33300; S33300.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
     MOD RES
                                  AMIDATION.
FT
                  11
                         11
     SEOUENCE
                11 AA; 1278 MW; 214860DEC9D6D867 CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.5e+04;
  Best Local Similarity
                                                                              0;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
Qy
            5 KP 6
              11
            1 KP 2
Db
RESULT 22
ANGT CRIGE
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ID ANGT CRIGE

STANDARD;

PRT;

11 AA.

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AC
     P09037;
     01-NOV-1988 (Rel. 09, Created)
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Crinia-angiotensin II.
DE
     Crinia georgiana (Quacking frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Crinia.
     NCBI TaxID=8374;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=80024575; PubMed=488254;
     Erspamer V., Melchiorri P., Nakajima T., Yasuhara T., Endean R.;
RA
     "Amino acid composition and sequence of crinia-angiotensin, an
RT
     angiotensin II-like endecapeptide from the skin of the Australian
RT
     frog Crinia georgiana.";
RT
     Experientia 35:1132-1133(1979).
RL
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
     PIR; S07207; S07207.
DR
KW
     Vasoconstrictor.
                11 AA; 1271 MW; 8A0921F7DB50440A CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%;
                                   Pred. No. 9.1e+04;
                                 0; Mismatches
  Matches
             1; Conservative
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
            1 A 1
Qy
Db
            1 A 1
RESULT 23
ASL1 BACSE
ID
     ASL1 BACSE
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P83146;
     28-FEB-2003 (Rel. 41, Created)
DT
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 1 (EC 4.2.2.-) (Fragment).
DE
os
     Bacteroides stercoris.
OC
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
     Bacteroidaceae; Bacteroides.
OC
     NCBI TaxID=46506;
OX
RN
RP
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
     STRAIN=HJ-15;
RC
     MEDLINE=21223019; PubMed=11322884;
RX
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RA
RT
     "Purification and characterization of acharan sulfate lyases, two
     novel heparinases, from Bacteroides stercoris HJ-15.";
RT
RL
     Eur. J. Biochem. 268:2635-2641(2001).
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and cobalt.
```

```
Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
CC
         mercaptoethanol.
     -!- SUBUNIT: Monomer.
CC
     -!- PTM: The N-terminus is blocked.
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
CC
     Lyase; Heparin-binding.
KW
     NON TER
                   1
FT
                           1
     NON TER
                  11
                          11
FT
     SEQUENCE
                11 AA; 1395 MW; 01B2DAA241E865AB CRC64;
SO
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                  0; Mismatches
                                                     0; Indels
                                                                       Gaps
                                                                               0;
  Matches
             1; Conservative
            7 N 7
Qy
Db
            1 N 1
RESULT 24
BPP3 BOTIN
     BPP3 BOTIN
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P30423;
AC
     01-APR-1993 (Rel. 25, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
DТ
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide $4,3,2 (10C) (Angiotensin-converting
DE
DΕ
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OC
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
     MEDLINE=90351557; PubMed=2386615;
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RT
     J. Protein Chem. 9:221-227(1990).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
CC
     PIR; C37196; C37196.
DR
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                           1
                                   20B25813C7741777 CRC64;
     SEQUENCE
SO
                11 AA; 1199 MW;
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                                0;
                               0; Mismatches
                                                                   0; Gaps
             1; Conservative
                                                     0; Indels
            6 P 6
Qу
              1
```

```
RESULT 25
BPP4 BOTIN
     BPP4 BOTIN
                                            11 AA.
                    STANDARD;
                                    PRT;
     P30424;
AC
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Bradykinin-potentiating peptide S4,1,2 (Angiotensin-converting
DE
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI_TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
     MEDLINE=90351557; PubMed=2386615;
RX
RA
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RT
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
     J. Protein Chem. 9:221-227(1990).
RL
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
         bradykinin by inhibiting the kinases that inactivate it.
CC
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; D37196; D37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     SEQUENCE
                11 AA; 1143 MW; 20BBBF13C7741777 CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.1e+04;
             1; Conservative
                                 0; Mismatches
                                                        Indels
                                                                   0; Gaps
                                                                               0;
                                                    0;
            6 P 6
Qу
Db
            4 P 4
RESULT 26
BPPB AGKHA
     BPPB AGKHA
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P01021;
DT
     21-JUL-1986 (Rel. 01, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide B (Angiotensin-converting
DE
DE
     enzyme inhibitor).
     Agkistrodon halys blomhoffi (Mamushi) (Gloydius blomhoffii).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=242054;
```

```
[1]
     SEQUENCE.
RP
RC
     TISSUE=Venom;
     Kato H., Suzuki T.;
RA
     "Amino acid sequence of bradykinin-potentiating peptide isolated from
RT
RT
     the venom of Agkistrodon halvs blomhoffii.";
     Proc. Jpn. Acad., B, Phys. Biol. Sci. 46:176-181(1970).
RL
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
         angiotensin-converting enzyme and enhances the action of
CC
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; A01254; XASNBA.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                   PYRROLIDONE CARBOXYLIC ACID.
SQ
     SEQUENCE
                11 AA; 1199 MW;
                                  295CBF0627741777 CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.1e+04;
  Matches
             1; Conservative
                                0; Mismatches
                                                                               0;
                                                    0;
                                                        Indels
                                                                  0; Gaps
            2 K 2
Qу
              Db
            8 K 8
RESULT 27
BPP AGKHP
ID
     BPP AGKHP
                    STANDARD:
                                    PRT:
                                            11 AA.
AC
     P04562;
DT
     13-AUG-1987 (Rel. 05, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Bradykinin-potentiating peptide (Angiotensin-converting
DE
     enzyme inhibitor).
OS
     Agkistrodon halys pallas (Chinese water mocassin) (Gloydius halys
OS
     pallas).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=8714;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
     MEDLINE=86177022; PubMed=3008123;
RA
     Chi C.-W., Wang S.-Z., Xu L.-G., Wang M.-Y., Lo S.-S., Huang W.-D.;
RT
     "Structure-function studies on the bradykinin potentiating peptide
RT
     from Chinese snake venom (Agkistrodon halys pallas).";
RL
     Peptides 6 Suppl. 3:339-342(1985).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; JC0002; XAVIBH.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
                                  30BABF1277686777 CRC64;
SO
     SEQUENCE
                        1112 MW;
                11 AA;
```

RN

```
9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                        100.0%; Pred. No. 9.1e+04;
                                                                              0:
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
            1; Conservative
            6 P 6
Qу
Db
            4 P 4
RESULT 28
BRK MEGFL
                                   PRT;
                                           11 AA.
     BRK MEGFL
                    STANDARD;
ΙD
AC
     P12797;
     01-OCT-1989 (Rel. 12, Created)
DT
     01-OCT-1989 (Rel. 12, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
    Megascoliakinin ([Thr6]bradykinin-Lys-Ala) [Contains: Bradykinin-like
DE
     peptide ([Thr6]bradykinin)].
DE
    Megascolia flavifrons (Garden dagger wasp) (Solitary wasp).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
OC
     Scoliidae; Megascolia.
OC
OX
     NCBI TaxID=7437;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Venom;
RX
     MEDLINE=87293024; PubMed=3617088;
RA
     Yasuhara T., Mantel P., Nakajima T., Piek T.;
     "Two kinins isolated from an extract of the venom reservoirs of the
RT
     solitary wasp Megascolia flavifrons.";
RT
     Toxicon 25:527-535(1987).
RL
RN
     [2]
     SEQUENCE.
RP
RC
     TISSUE=Venom;
     Nakajima T., Piek T., Yashuara T., Mantel P.;
RA
     "Two kinins isolated from the venom of Megascolia flavifrons.";
RT
     Toxicon 26:34-34(1988).
RL
     -!- FUNCTION: Both proteins have bradykinin-like, although lower
CC
         activities (e.g. smooth muscle contraction).
CC
     -!- SUBCELLULAR LOCATION: Secreted; wasp venom reservoirs.
CC
     -!- SIMILARITY: Belongs to the bradykinin family.
CC
     PIR; B26744; B26744.
DR
     GO; GO:0005615; C:extracellular space; IDA.
DR
     GO; GO:0045776; P:negative regulation of blood pressure; ISS.
DR
     GO; GO:0045987; P:positive regulation of smooth muscle contra. . .; TAS.
DR
     Bradykinin; Vasodilator.
KW
                                  MEGASCOLIAKININ.
     PEPTIDE
                   1
                         11
FT
                          9
                                  BRADYKININ-LIKE PEPTIDE.
FT
     PEPTIDE
                   1
                11 AA; 1273 MW; 33867393D771A9C8 CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
            1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            6 P 6
Qу
```

2 P 2

Db

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RESULT 29
CA21 LITCI
                                            11 AA.
     CA21 LITCI
                    STANDARD;
                                    PRT;
     P82087;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 2.1/2.1Y4.
DΕ
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.1Y4 differs from isoform 2.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1372; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
ΚW
     Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                           1
FT
                    1
FT
     MOD RES
                    4
                           4
                                   SULFATION.
FT
     MOD RES
                   11
                          11
                                   AMIDATION.
                         1312 MW; 10DAB7C4EDD861BB CRC64;
     SEQUENCE
                11 AA;
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                   0; Gaps
                                                                                0;
                                 0; Mismatches
                                                     0;
                                                        Indels
  Matches
             1; Conservative
           11 D 11
Qy
              1
Db
            3 D 3
RESULT 30
CA22 LITCI
                                    PRT;
                                             11 AA.
     CA22 LITCI
                     STANDARD;
ID
     P82088;
AC.
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Caerulein 2.2/2.2Y4.
```

```
Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
     NCBI TaxID=94770;
OX
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
    MEDLINE=20057701; PubMed=10589099;
RX
    Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
RT
     using electrospray mass spectrometry.";
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
     -!- PTM: Isoform 2.2Y4 differs from isoform 2.2 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
    InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
    Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   1
    MOD RES
                   4
                          4
                                  SULFATION.
FT
    MOD RES
FT
                  11
                         11
                                  AMIDATION.
     SEQUENCE
SQ
                11 AA; 1328 MW;
                                 10DAB894EDD861BB CRC64;
                                  Score 1; DB 1; Length 11;
  Query Match
                           9.1%;
  Best Local Similarity
                          100.0%; Pred. No. 9.1e+04;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
           11 D 11
Qу
Db
            3 D 3
RESULT 31
CA31 LITCI
     CA31 LITCI
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P82089;
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Caerulein 3.1/3.1Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
```

```
"Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.1Y4 differs from isoform 3.1 in not being
CC
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1407; METHOD=Electrospray.
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
FT
     MOD RES
                   4
                          4
                                  SULFATION.
                  11
                         11.
                                  AMIDATION.
FT
     MOD RES
                11 AA; 1347 MW; 10DAB7D67861A86B CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.1e+04;
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
           11 D 11
QУ
              1
Db
            3 D 3
RESULT 32
CA32 LITCI
     CA32 LITCI
                    STANDARD;
                                   PRT:
                                            11 AA.
TD
AC
     P82090;
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Caerulein 3.2/3.2Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
     NCBI TaxID=94770;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.2Y4 differs from isoform 3.2 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1423; METHOD=Electrospray.
CC
```

```
InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   1
                          1
    MOD RES
                   4
                          4
                                  SULFATION.
FT
    MOD RES
                         11
                                  AMIDATION.
FT
                  11
     SEQUENCE
                11 AA; 1363 MW;
                                  10DAB8867861A86B CRC64;
SO
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                               0;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
           11 D 11
Qу
              -
            3 D 3
Db
RESULT 33
CA41 LITCI
                                    PRT;
                                            11 AA.
     CA41 LITCI
                    STANDARD;
     P82091;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 4.1/4.1Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
ŔТ
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.1Y4 differs from isoform 4.1 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
FT
     MOD RES
                   4
                          4
                                   SULFATION.
FT
     MOD RES
                  11
                         11
                                   AMIDATION.
                        1328 MW; 10DAB7C4F5B861BB CRC64;
SQ
     SEQUENCE
                11 AA;
```

-!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.

CC

```
Query Match
                           9.1%; Score 1; DB 1; Length 11;
                        100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
             1: Conservative
                                0: Mismatches
                                                   0;
                                                      Indels
                                                                  0; Gaps
                                                                              0;
           11 D 11
Qу
              3 D 3
Dh
RESULT 34
CA42 LITCI
                                   PRT;
                                           11 AA.
ID
     CA42 LITCI
                    STANDARD;
AC
     P82092;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 4.2/4.2Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
    MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.2Y4 differs from isoform 4.2 in not being
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1404; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                   4
                          4
FT
     MOD RES
                                  SULFATION.
                                  AMIDATION.
FT
     MOD RES
                  11
                         11
                                  10DAB894F5B861BB CRC64;
     SEQUENCE
                11 AA; 1344 MW;
SQ
                                  Score 1; DB 1; Length 11;
  Query Match
                           9.1%;
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                              0;
                                 0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
             1; Conservative
           11 D 11
QУ
```

RESULT 35

3 D 3

Db

```
CEP1 ACHFU
                    STANDARD;
                                    PRT;
                                            11 AA.
ΤD
     P22790;
AC
     01-AUG-1991 (Rel. 19, Created)
DT
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
     01-DEC-1992 (Rel. 24, Last annotation update)
DT
     Cardio-excitatory peptide-1 (ACEP-1).
DE
     Achatina fulica (Giant African snail).
os
     Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
OC
     Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OC
     NCBI_TaxID=6530;
OX
RN
     [1]
RP
     SEQUENCE.
     STRAIN=Ferussac; TISSUE=Heart atrium;
RC
     MEDLINE=90211261; PubMed=2322251;
RX
     Fujimoto K., Ohta N., Yoshida M., Kubota I., Muneoka Y., Kobayashi M.;
RA
     "A novel cardio-excitatory peptide isolated from the atria of the
RT
     African giant snail, Achatina fulica.";
RT
     Biochem. Biophys. Res. Commun. 167:777-783(1990).
RL
     -!- FUNCTION: Potentiates the beat of the ventricle, and has also
CC
         excitatory actions on the penis retractor muscle, the buccal
CC
         muscle and the identified neurons controlling the buccal muscle
CC
         movement of achatina.
CC
     -!- SIMILARITY: TO POSSIBLE PEPTIDE L5 FROM APLYSIA.
CC
     PIR; A34662; A34662.
DR
KW
     Hormone; Amidation.
                                  AMIDATION.
     MOD RES
                         11
FT
                  11
                11 AA; 1305 MW;
                                  82D6D5B9C7741365 CRC64;
     SEQUENCE
SO
                                  Score 1; DB 1; Length 11;
  Query Match
                           9.1%;
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
  Matches
             1; Conservative
            6 P 6
Qу
Db
            7 P 7
RESULT 36
CORZ PERAM
     CORZ PERAM
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P11496;
DT
     01-OCT-1989 (Rel. 12, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Corazonin.
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
OC
     Blattidae; Periplaneta.
OX
     NCBI TaxID=6978;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Corpora cardiaca;
RX
     MEDLINE=89325572; PubMed=2753132;
RA
     Veenstra J.A.;
     "Isolation and structure of corazonin, a cardioactive peptide from
RT
```

CEP1 ACHFU

```
RT
     the American cockroach.";
     FEBS Lett. 250:231-234(1989).
RT.
     -!- FUNCTION: Cardioactive peptide. Corazonin is probably involved
CC
         in the physiological regulation of the heart beat.
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
DR
     PIR; S05002; S05002.
     Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FΤ
     MOD RES
                   1
                          1
     MOD RES
                  11
                         11
                                  AMIDATION.
FT
     SEQUENCE
                11 AA; 1387 MW; C7CFF32D6415AB46 CRC64;
SQ
                                  Score 1; DB 1; Length 11;
  Query Match
                           9.1%;
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                              0:
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
             1; Conservative
            7 N 7
Qу
           11 N 11
Db
RESULT 37
COXA CANFA
     COXA CANFA
                                   PRT;
                                           11 AA.
                    STANDARD;
ΙD
     P99501;
AC
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
DT
     Cytochrome c oxidase polypeptide Va (EC 1.9.3.1) (Fragment).
DE
     COX5A.
GN
OS
     Canis familiaris (Dog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OC
OX
     NCBI_TaxID=9615;
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Heart;
RC
RX
     MEDLINE=98163340; PubMed=9504812;
RA
     Dunn M.J., Corbett J.M., Wheeler C.H.;
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
RT
     dog heart proteins.";
     Electrophoresis 18:2795-2802(1997).
RL
     -!- FUNCTION: This is the heme A-containing chain of cytochrome c
CC
         oxidase, the terminal oxidase in mitochondrial electron transport.
CC
     -!- CATALYTIC ACTIVITY: 4 ferrocytochrome c + O(2) = 4 ferricytochrome
CC
CC
         c + 2 H(2)0.
CC
     -!- SUBCELLULAR LOCATION: Mitochondrial inner membrane.
     -!- SIMILARITY: Belongs to the cytochrome c oxidase Va family.
CC
     HSC-2DPAGE; P99501; DOG.
DR
DR
     InterPro; IPR003204; Cyt c ox5A.
DR
     Pfam; PF02284; COX5A; 1.
KW
     Oxidoreductase; Heme; Mitochondrion; Inner membrane.
FT
     NON TER
                  11
                         11
                11 AA; 1274 MW; 910B35C5B1AB11F5 CRC64;
SQ
     SEQUENCE
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                0; Mismatches
                                                                              0;
             1; Conservative
                                                    0; Indels
                                                                  0; Gaps
```

```
4 E 4
Qу
            6 E 6
Db
RESULT 38
CX5A CONAL
     CX5A CONAL
                                    PRT;
                                            11 AA.
                    STANDARD;
ID
     P58848;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Conotoxin au5a.
DE
     Conus aulicus (Court cone).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OC
     NCBI TaxID=89437;
OX
RN
     [1]
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RP
     TISSUE=Venom;
RC
     MEDLINE=99452958; PubMed=10521453;
RX
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     "The T-superfamily of conotoxins.";
RT
     J. Biol. Chem. 274:30664-30671(1999).
RL
RN
     [2]
RP
     ERRATUM.
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
     -!- MASS SPECTROMETRY: MW=1436.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
     PIR; A59146; A59146.
DR
KW
     Toxin.
                    2
FT
     DISULFID
                          10
     DISULFID
                    3
FT
                                   21A36775440059D7 CRC64;
                11 AA; 1441 MW;
     SEQUENCE
SQ
                            9.1%;
                                   Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                               0;
                                  0; Mismatches 0; Indels
                                                                   0;
                                                                       Gaps
  Matches
             1; Conservative
             6 P 6
Qу
             4 P 4
Db
```

RESULT 39 CX5B CONAL

```
P58849;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DΕ
     Conotoxin au5b.
OS
     Conus aulicus (Court cone).
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apoqastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OC
     NCBI TaxID=89437;
OX
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
     MEDLINE=99452958; PubMed=10521453;
RX
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     "The T-superfamily of conotoxins.";
RT
     J. Biol. Chem. 274:30664-30671(1999).
RL
RN
     [2]
RP
     ERRATUM.
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice (By similarity).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1388.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
DR
     PIR; B59146; B59146.
KW
     Toxin.
FT
     DISULFID
                   2
                           9
FT
     DISULFID
                   3
                         1.0
                                   21A36775440042D7 CRC64;
SQ SEQUENCE
                11 AA;
                       1393 MW;
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                               0;
                                                                   0; Gaps
  Matches
             1; Conservative
            6 P 6
Qу
Db
            4 P 4
RESULT 40
CXL1 CONMR
                                    PRT;
                                            11 AA.
ID
     CXL1 CONMR
                     STANDARD;
AC
     P58807;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Lambda-conotoxin CMrVIA.
     Conus marmoreus (Marble cone).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
```

11 AA.

PRT;

CX5B CONAL

ID

STANDARD;

```
Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
    NCBI_TaxID=42752;
OX
RN
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom:
    MEDLINE=20564325; PubMed=10988292;
RX
     Balaji R.A., Ohtake A., Sato K., Gopalakrishnakone P., Kini R.M.,
RA
     Seow K.T., Bay B.-H.;
RA
     "Lambda-conotoxins, a new family of conotoxins with unique disulfide
RT
     pattern and protein folding. Isolation and characterization from the
RT
     venom of Conus marmoreus.";
RT
     J. Biol. Chem. 275:39516-39522(2000).
RL
     -!- FUNCTION: Inhibits the neuronal noradrenaline transporter.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1237.93; MW ERR=0.21; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the chi/lambda-conotoxin family.
CC
KW
    Neurotoxin; Toxin; Hydroxylation.
FT
    DISULFID
                   2
                         11
FT
    DISULFID
                   3
                          8
                  10
                         10
                                  HYDROXYLATION.
FT
    MOD RES
                11 AA; 1226 MW; 277AAC60B7232B58 CRC64;
    SEQUENCE
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
            1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
            2 K 2
Qy
Db
            6 K 6
RESULT 41
ES1_RAT
ΙD
     ES1 RAT
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P56571;
DT
     15-DEC-1998 (Rel. 37, Created)
     15-DEC-1998 (Rel. 37, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     ES1 protein, mitochondrial (Fragment).
DE
OS
     Rattus norvegicus (Rat).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OC
OX
    NCBI TaxID=10116;
RN
     [1]
RP
     SEQUENCE.
     STRAIN=Wistar; TISSUE=Heart;
RC
     Li X.-P., Pleissner K.-P., Scheler C., Regitz-Zagrosek V., Salikov J.,
RA
RA
     Jungblut P.R.;
     Submitted (SEP-1998) to Swiss-Prot.
RL
     -!- SUBCELLULAR LOCATION: Mitochondrial (Potential).
CC
     -!- MISCELLANEOUS: By 2D-PAGE, the determined pI of this protein (spot
CC
CC
         P2) is: 8.9, its MW is: 25 kDa.
     -!- SIMILARITY: BELONGS TO THE ES1 FAMILY.
CC
KW
     Mitochondrion.
FT
     NON_TER
                  11
                         11
```

OC

```
11 AA; 1142 MW; D862272D32C72DC2 CRC64;
SO
     SEQUENCE
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
  Matches
             1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 A 1
Qу
            2 A 2
Db
RESULT 42
FAR6 PENMO
     FAR6 PENMO
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P83321;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     FMRFamide-like neuropeptide FLP6 (DGRTPALRLRF-amide).
OS
     Penaeus monodon (Penoeid shrimp).
     Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC
OC
     Eumalacostraca; Eucarida; Decapoda; Dendrobranchiata; Penaeoidea;
OC
     Penaeidae; Penaeus.
OX
     NCBI TaxID=6687;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Eyestalk;
     MEDLINE=21956277; PubMed=11959015;
RX
     Sithigorngul P., Pupuem J., Krungkasem C., Longyant S.,
RA
     Chaivisuthangkura P., Sithigorngul W., Petsom A.;
RA
     "Seven novel FMRFamide-like neuropeptide sequences from the eyestalk
RT
RT
     of the giant tiger prawn Penaeus monodon.";
RL
     Comp. Biochem. Physiol. 131B:325-337(2002).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- MASS SPECTROMETRY: MW=1301.8; METHOD=MALDI.
CC
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
         family.
CC
     GO; GO:0007218; P:neuropeptide signaling pathway; TAS.
DR
KW
     Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1301 MW; 9A19C860072DC771 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.1e+04;
  Matches
             1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
           11 D 11
Qу
Db
            1 D 1
RESULT 43
LADD ONCMY
     LADD ONCMY
                                           11 AA.
ID
                                   PRT;
                    STANDARD;
AC
     P81018;
     01-NOV-1997 (Rel. 35, Created)
DT
DT
     01-NOV-1997 (Rel. 35, Last sequence update)
```

```
Ladderlectin (Fragment).
DE
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
     NCBI TaxID=8022;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Blood;
RC
     MEDLINE=97293418; PubMed=9149391;
RX
     Jensen L.E., Thiel S., Petersen T.E., Jensenuis J.C.;
RA
     "A rainbow trout lectin with multimeric structure.";
RT
     Comp. Biochem. Physiol. 116B:385-390(1997).
RL
     -!- FUNCTION: Lectin that binds sepharose.
CC
     -!- COFACTOR: Calcium is essential for sepharose binding.
CC
     -!- SUBUNIT: Multimeric.
CC
     Lectin; Calcium.
ΚŴ
     NON TER
                  11
                         11
FT
     SEQUENCE
                11 AA; 1163 MW; 0B26227FF6D45404 CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                              0;
             1; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
            1 A 1
Qу
              -1
Db
            1 A 1
RESULT 44
LPW_THETH
     LPW THETH
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
     P05624;
AC
     01-NOV-1988 (Rel. 09, Created)
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
DT
     Trp operon leader peptide.
DΕ
     TRPL.
GN
OS
     Thermus thermophilus.
     Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC
OC
     Thermus.
OX
     NCBI TaxID=274;
RN
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=HB8 / ATCC 27634;
     MEDLINE=89000781; PubMed=2844259;
RX
     Sato S., Nakada Y., Kanaya S., Tanaka T.;
RA
     "Molecular cloning and nucleotide sequence of Thermus thermophilus
RT
RT
     HB8 trpE and trpG.";
     Biochim. Biophys. Acta 950:303-312(1988).
RL
     -!- FUNCTION: THIS PROTEIN IS INVOLVED IN CONTROL OF THE BIOSYNTHESIS
CC
         OF TRYPTOPHAN.
CC
CC
CC
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     between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
     the European Bioinformatics Institute. There are no restrictions on its
CC
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15-DEC-1998 (Rel. 37, Last annotation update)

DT

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CC
    modified and this statement is not removed. Usage by and for commercial
CC
    entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC
    or send an email to license@isb-sib.ch).
CC
    _____
CC
    EMBL; X07744; CAA30565.1; -.
DR
    Tryptophan biosynthesis; Leader peptide.
KW
    SEQUENCE 11 AA; 1228 MW; 364B295A772DC5A7 CRC64;
SQ
  Query Match
                          9.1%; Score 1; DB 1; Length 11;
                         100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
  Matches
           1; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                          0;
           1 A 1
Qу
           2 A 2
Db
RESULT 45
LSK1 LEUMA
                                 PRT;
    LSK1 LEUMA
                   STANDARD;
                                         11 AA.
    P04428;
AC
    13-AUG-1987 (Rel. 05, Created)
DT
    13-AUG-1987 (Rel. 05, Last sequence update)
DT
    15-MAR-2004 (Rel. 43, Last annotation update)
DT
    Leucosulfakinin-I (LSK-I).
DE
    Leucophaea maderae (Madeira cockroach).
OS
OC
    Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
    Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
OC
    Blaberidae; Leucophaea.
OX
    NCBI TaxID=6988;
RN
     [1]
RP
    SEQUENCE.
RX
    MEDLINE=86315858; PubMed=3749893;
RA
    Nachman R.J., Holman G.M., Haddon W.F., Ling N.;
    "Leucosulfakinin, a sulfated insect neuropeptide with homology to
RT
RT
    gastrin and cholecystokinin.";
RL
    Science 234:71-73(1986).
    -!- FUNCTION: Change the frequency and amplitude of contractions of
CC
CC
        the hingut. Inhibits muscle contraction of hindgut.
CC
    -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
    PIR; A01622; GMROL.
DR
DR
    InterPro; IPR001651; Gastrin.
    PROSITE; PS00259; GASTRIN; 1.
DR
    Hormone; Amidation; Sulfation.
KW
    MOD RES
                             SULFATION.
FT
                 6
                       6
FT
    MOD RES
                 11
                        11
                                AMIDATION.
              11 AA; 1459 MW; 7E4E0680E86B5AAB CRC64;
SQ
    SEQUENCE
                          9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.1e+04;
                                                               0; Gaps
                                                                          0;
          1; Conservative 0; Mismatches
                                               0; Indels
QУ
           4 E 4
             - 1
           1 E 1
Db
```

```
RESULT 46
LSKP PERAM
ID
     LSKP PERAM
                    STANDARD;
                                    PRT;
                                            11 AA.
     P36885;
AC
     01-JUN-1994 (Rel. 29, Created)
DT
     01-JUN-1994 (Rel. 29, Last sequence update)
DT
DT
     01-FEB-1996 (Rel. 33, Last annotation update)
     Perisulfakinin (Pea-SK-I).
DE
     Periplaneta americana (American cockroach).
OS
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
OX
     NCBI TaxID=6978;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Corpora cardiaca;
RX
     MEDLINE=90137190; PubMed=2615921;
RA
     Veenstra J.A.;
RT
     "Isolation and structure of two gastrin/CCK-like neuropeptides from
     the American cockroach homologous to the leucosulfakinins.";
RT
RL
     Neuropeptides 14:145-149(1989).
CC
     -!- FUNCTION: Stimulates hindgut contractions.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     PIR; A60656; A60656.
     InterPro; IPRO01651; Gastrin.
DR
DR
     PROSITE; PS00259; GASTRIN; 1.
KW
     Hormone; Amidation; Sulfation.
FT
     MOD RES
                   6
                           6
                                   SULFATION.
                  11
                         11
FT
     MOD RES
                                   AMIDATION.
SQ
     SEQUENCE
                11 AA; 1445 MW; 8B4E0680E86B5AAA CRC64;
  Query Match
                            9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
  Matches
             1; Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                               0;
            4 E 4
Qу
Db
            1 E 1
RESULT 47
MHBI KLEPN
ID
     MHBI KLEPN
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P80580;
DT
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
     01-NOV-1997 (Rel. 35, Last annotation update)
DΕ
     Maleylpyruvate isomerase (EC 5.2.1.4) (Fragment).
GN
     MHBI.
OS
     Klebsiella pneumoniae.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Klebsiella.
OX
     NCBI TaxID=573;
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=96349117; PubMed=8760924;
RX
```

```
Robson N.D., Parrott S., Cooper R.A.;
RA
     "In vitro formation of a catabolic plasmid carrying Klebsiella
RT
     pneumoniae DNA that allows growth of Escherichia coli K-12 on 3-
RT
     hydroxybenzoate.";
RT
     Microbiology 142:2115-2120(1996).
RL
     -!- CATALYTIC ACTIVITY: 3-maleylpyruvate = 3-fumarylpyruvate.
CC
KW
     Isomerase.
     NON TER
                  11
                         11
FT
     SEQUENCE
                11 AA;
                        1387 MW;
                                  1EE0E2DD49C9D5AB CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                  0; Mismatches
                                                                  0;
                                                                       Gaps
                                                                               0;
             1; Conservative
                                                    0;
                                                        Indels
            2 K 2
Qy
            2 K 2
Db
RESULT 48
MLG THETS
                    STANDARD;
                                    PRT;
                                            11 AA.
     MLG THETS
ID
AC
     P41989;
DT 1
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Melanotropin gamma (Gamma-melanocyte stimulating hormone) (Gamma-MSH).
DE
     Theromyzon tessulatum (Leech).
OS
     Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC
     Rhynchobdellida; Glossiphoniidae; Theromyzon.
OC
OX
     NCBI TaxID=13286;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
RX
     MEDLINE=94298944; PubMed=8026574;
RA
     Salzet M., Wattez C., Bulet P., Malecha J.;
     "Isolation and structural characterization of a novel peptide related
RT
     to gamma-melanocyte stimulating hormone from the brain of the leech
RT
     Theromyzon tessulatum.";
RT
     FEBS Lett. 348:102-106(1994).
RL
     -!- SIMILARITY: Belongs to the POMC family.
CC
     PIR; S45698; S45698.
DR
     Hormone; Amidation.
KW
FT
     MOD RES
                  11
                                   AMIDATION.
                          11
                                   2DB8FACE6409C1E8 CRC64;
     SEQUENCE
                11 AA;
                        1486 MW;
SQ
                            9.1%;
                                   Score 1; DB 1;
                                                    Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.1e+04;
                                                                   0; Gaps
                                                                               0;
                                 0; Mismatches
                                                    0; Indels
  Matches
             1; Conservative
            2 K 2
Qy
           10 K 10
Db
```

RESULT 49 MORN HUMAN

```
STANDARD;
                                            11 AA.
     MORN HUMAN
                                    PRT;
ID
AC
     P01163;
     21-JUL-1986 (Rel. 01, Created)
DТ
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Morphogenetic neuropeptide (Head activator) (HA).
DE
     Homo sapiens (Human),
OS
OS
     Rattus norvegicus (Rat),
OS
     Bos taurus (Bovine),
OS
     Anthopleura elegantissima (Sea anemone), and
     Hydra attenuata (Hydra) (Hydra vulgaris).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606, 10116, 9913, 6110, 6087;
RN
     [1]
RP
     SEQUENCE.
RC
     SPECIES=Human, Rat, and Bovine;
     MEDLINE=82035850; PubMed=7290191;
RX
RA
     Bodenmuller H., Schaller H.C.;
     "Conserved amino acid sequence of a neuropeptide, the head activator,
RT
RT
     from coelenterates to humans.";
     Nature 293:579-580(1981).
RL
RN
     [2]
     SEQUENCE.
RP
     SPECIES=A.elegantissima, and H.attenuata;
RC
     Schaller H.C., Bodenmuller H.;
RA
RT
     "Isolation and amino acid sequence of a morphogenetic peptide from
     hydra.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 78:7000-7004(1981).
RL
RN
RP
     SYNTHESIS.
RX
     MEDLINE=82050803; PubMed=7297679;
     Birr C., Zachmann B., Bodenmuller H., Schaller H.C.;
RA
RT
     "Synthesis of a new neuropeptide, the head activator from hydra.";
RL
     FEBS Lett. 131:317-321(1981).
RN
     [4]
RP
     FUNCTION.
RX
     MEDLINE=90059923; PubMed=2583101;
     Schaller H.C., Druffel-Augustin S., Dubel S.;
RA
RT
     "Head activator acts as an autocrine growth factor for NH15-CA2 cells
     in the G2/mitosis transition.";
RT
RL
     EMBO J. 8:3311-3318(1989).
CC
     -!- FUNCTION: HA acts as an autocrine growth factor for neural cells
CC
         in the G2/mitosis transition.
CC
     -!- CAUTION: This peptide was first isolated from nerve cells of hydra
         and was called head activator by the authors, because it induced
CC
CC
         head-specific growth and differentiation in this animal. It has
CC
         been found in mammalian intestine and hypothalamus.
DR
     PIR; A01427; YHRT.
DR
     PIR; A93900; YHXAE.
     PIR; B01427; YHHU.
DR
DR
     PIR; B93900; YHJFHY.
DR
     PIR; C01427; YHBO.
DR
     GK; P01163; -.
     Growth factor; Cell cycle; Mitosis; Pyrrolidone carboxylic acid.
KW
                                 PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
                11 AA; 1142 MW; 37927417C325B878 CRC64;
SO
     SEQUENCE
```

```
Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.1e+04;
             1; Conservative 0; Mismatches
                                                   0; Indels
                                                                              0:
                                                                      Gaps
            6 P 6
Qy
              - [
Db
            2 P 2
RESULT 50
NUHM CANFA
ID
     NUHM CANFA
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P49820;
DT
     01-OCT-1996 (Rel. 34, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     NADH-ubiquinone oxidoreductase 24 kDa subunit (EC 1.6.5.3)
DE
     (EC 1.6.99.3) (Fragment).
GN
     NDUFV2.
    Canis familiaris (Dog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX
     NCBI TaxID=9615;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Heart;
RX
     MEDLINE=98163340; PubMed=9504812;
RA
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RT
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
     dog heart proteins.";
RL:
     Electrophoresis 18:2795-2802(1997).
CC
     -!- FUNCTION: TRANSFER OF ELECTRONS FROM NADH TO THE RESPIRATORY
         CHAIN. THE IMMEDIATE ELECTRON ACCEPTOR FOR THE ENZYME IS BELIEVED
CC
CC
         TO BE UBIQUINONE. COMPONENT OF THE FLAVOPROTEIN-SULFUR (FP)
CC
         FRAGMENT OF THE ENZYME.
CC
     -!- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.
     -!- CATALYTIC ACTIVITY: NADH + acceptor = NAD(+) + reduced acceptor.
CC
CC
     -!- COFACTOR: Binds 1 2Fe-2S cluster (Potential).
CC
     -!- SUBUNIT: Mammalian complex I is composed of 45 different subunits.
CC
     -!- SUBCELLULAR LOCATION: Matrix and cytoplasmic side of the
CC
         mitochondrial inner membrane.
CC
     -!- SIMILARITY: Belongs to the complex I 24 kDa subunit family.
DR
     HSC-2DPAGE; P49820; DOG.
DR
     InterPro; IPR002023; Cmplx1 24kDa.
DR
     PROSITE; PS01099; COMPLEX1 24K; PARTIAL.
KW
     Oxidoreductase; NAD; Ubiquinone; Mitochondrion; Metal-binding;
KW
     Iron-sulfur; Iron; 2Fe-2S.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1099 MW; 267F5369C9C72DD8 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 9.1e+04;
             1; Conservative
  Matches
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            1 A 1
```

Ι

```
RESULT 51
NXSN PSETE
                    STANDARD;
                                    PRT;
                                            11 AA.
     NXSN PSETE
ID
     P59072;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Short neurotoxin N1 (Alpha neurotoxin) (Fragment).
DE
     Pseudonaja textilis (Eastern brown snake).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Elapidae; Acanthophiinae; Pseudonaja.
OC
     NCBI TaxID=8673;
OX
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
     MEDLINE=99449602; PubMed=10518793;
RX
     Gong N.L., Armugam A., Jeyaseelan K.;
RA
     "Postsynaptic short-chain neurotoxins from Pseudonaja textilis: cDNA
RT
     cloning, expression and protein characterization.";
RT
     Eur. J. Biochem. 265:982-989(1999).
RL
     -!- FUNCTION: Lethal neurotoxin, binds and inhibits nicotinic
CC
         acetylcholine receptors (nAChR).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom gland.
CC
     -!- MASS SPECTROMETRY: MW=6236; METHOD=Electrospray.
CC
     -!- MISCELLANEOUS: LD(50) is 0.84 mg/kg by intravenous injection.
CC
     -!- SIMILARITY: Belongs to the snake toxin family.
CC
     InterPro; IPR003571; Snake toxin.
DR
     PROSITE; PS00272; SNAKE TOXIN; PARTIAL.
DR
     Toxin; Neurotoxin; Postsynaptic neurotoxin;
KW
     Acetylcholine receptor inhibitor; Multigene family.
KW
     UNSURE
                   3
                           3
FT
                          11
FT
     NON TER
                  11
                11 AA; 1319 MW; OD1EF0C81B58732B CRC64;
     SEQUENCE
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                               0;
                                0; Mismatches
                                                                  0; Gaps
             1; Conservative
                                                   0; Indels
  Matches
            2 K 2
Qу
            5 K 5
Db
RESULT 52
PKC1 CARMO
     PKC1 CARMO
                                    PRT:
                                            11 AA.
                     STANDARD;
ID
AC
     P82684;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Pyrokinin-1 (Cam-PK-1) (FXPRL-Amide).
DE
     Carausius morosus (Indian stick insect).
OS
```

```
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
    Neoptera; Orthopteroidea; Phasmatodea; Euphasmida; Phasmatoidea;
OC
OC
    Heteronemiidae; Carausius.
OX
    NCBI TaxID=7022;
     [1]
RN
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RΡ
    TISSUE=Corpora cardiaca;
RC
     Predel R., Kellner R., Gaede G.;
RA
     "Myotropic neuropeptides from the retrocerebral complex of the stick
RT
     insect, Carausius morosus (Phasmatodea: Lonchodidae).";
RT
     Eur. J. Entomol. 96:275-278(1999).
RL
     -!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
CC
CC
         activity).
     -!- MASS SPECTROMETRY: MW=1235; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the pyrokinin family.
CC
     InterPro; IPR001484; Pyrokinin.
DR
     PROSITE; PS00539; PYROKININ; FALSE NEG.
DR
    Neuropeptide; Amidation; Pyrokinin.
KW
                 11
                        11
                                 AMIDATION.
FT
                11 AA; 1236 MW; 2BFA5225BB46C1A8 CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                             0;
                                                                 0; Gaps
            1; Conservative 0; Mismatches 0; Indels
  Matches
           11 D 11
QУ
Db
            1 D 1
RESULT 53
PQQC_PSEFL
                                   PRT;
                                           11 AA.
     PQQC PSEFL
                    STANDARD;
ΙD
     P55173;
AC
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΤ
     Coenzyme PQQ synthesis protein C (Pyrroloquinoline quinone
DE
     biosynthesis protein C) (Fragment).
DE
GN
     PQQC.
OS
     Pseudomonas fluorescens.
     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
     Pseudomonadaceae; Pseudomonas.
OC
OX
     NCBI TaxID=294;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=CHA0;
RC
     MEDLINE=96064397; PubMed=8526497;
RX
     Schnider U., Keel C., Defago G., Haas D.;
RA
     "Tn5-directed cloning of pqq genes from Pseudomonas fluorescens CHA0:
RT
     mutational inactivation of the genes results in overproduction of the
RT
RT
     antibiotic pyoluteorin.";
     Appl. Environ. Microbiol. 61:3856-3864(1995).
RL
     -!- PATHWAY: Pyrroloquinoline quinone (PQQ) biosynthesis.
CC
     -!- SIMILARITY: Belongs to the pqqC family.
CC
     ______
CC
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    or send an email to license@isb-sib.ch).
CC
CC
    EMBL; X87299; CAA60734.1; -.
DR
    PIR; S58244; S58244.
DR
    HAMAP; MF 00654; -; 1.
DR
    PQQ biosynthesis.
KW
FT
    NON TER
                 11
                        11
     SEQUENCE
               11 AA; 1182 MW;
                                 89DF46E4C5B73771 CRC64;
SQ
                          9.1%; Score 1; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 9.1e+04;
                                                                            0;
            1; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
          11 D 11
             - 1
           3 D 3
Db
RESULT 54
PVK1 PERAM
     PVK1 PERAM
                   STANDARD;
                                  PRT:
                                          11 AA.
ID
     P41837;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Periviscerokinin-1 (Pea-PVK-1).
DE
     Periplaneta americana (American cockroach).
OS
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
OX
     NCBI TaxID=6978;
RN
     [1]
RP
     SEQUENCE, AND SYNTHESIS.
RC
     TISSUE=Abdominal perisympathetic organs;
     MEDLINE=95232021; PubMed=7716075;
RX
     Predel R., Linde D., Rapus J., Vettermann S., Penzlin H.;
RA
     "Periviscerokinin (Pea-PVK): a novel myotropic neuropeptide from the
RT
     perisympathetic organs of the American cockroach.";
RT
     Peptides 16:61-66(1995).
RL
     -!- FUNCTION: MYOACTIVE PEPTIDE; HAS EXCITORY ACTIONS ON THE
CC
CC
        HYPERNEURAL MUSCLE.
KW
     Neuropeptide; Amidation.
                                 AMIDATION.
FT
     MOD RES
                 11
                        11
               11 AA; 1114 MW; 39DB5419D7605728 CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.1e+04;
           1; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
  Matches
Qу
            1 A 1
Db
            2 A 2
```

```
RESULT 55
RANC RANPI
     RANC RANPI
                    STANDARD;
                                   PRT;
                                            11 AA.
     P08951;
AC
     01-NOV-1988 (Rel. 09, Created)
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranatensin-C.
DE
     Rana pipiens (Northern leopard frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8404;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=84131098; PubMed=6141890;
RX
     Nakajima T.;
RA
     Unpublished results, cited by:
RL
     Erspamer V., Erspamer G.F., Mazzanti G., Endean R.;
RL
     Comp. Biochem. Physiol. 77C:99-108(1984).
RL
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the bombesin/neuromedin B/ranatensin
CC
CC
         family.
     InterPro; IPR000874; Bombesin.
DR
DR
     Pfam; PF02044; Bombesin; 1.
     PROSITE; PS00257; BOMBESIN; 1.
DR
     Amphibian defense peptide; Bombesin family; Amidation.
KW
                                   AMIDATION.
     MOD RES
                  11
                         11
FT
                11 AA; 1304 MW;
                                   D6C9885A61ADC366 CRC64;
SQ
     SEQUENCE
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                               0;
             1; Conservative 0; Mismatches
                                                                   0; Gaps
                                                    0: Indels
  Matches
            6 P 6
Qу
            3 P 3 ·
Db
RESULT 56
RE41 LITRU
                                            11 AA.
     RE41 LITRU
                     STANDARD;
                                    PRT;
ΙD
AC
     P82074;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Rubellidin 4.1.
DE
     Litoria rubella (Desert tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
     NCBI TaxID=104895;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
```

```
RC
     TISSUE=Skin secretion;
     Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
RA
     Tyler M.J., Wallace J.C.;
RA
     "The structure of new peptides from the Australin red tree frog
RT
     'Litoria rubella'. The skin peptide profile as a probe for the study
RT
     of evolutionary trends of amphibians.";
RT
     Aust. J. Chem. 49:955-963(1996).
RL
     -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC
         activity.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC
     -!- MASS SPECTROMETRY: MW=1039; METHOD=FAB.
CC
     Amphibian defense peptide; Amidation.
KW
                         11
                                  AMIDATION.
FT
     MOD RES
                  11
                11 AA; 1040 MW; 84ED5CBC2877205A CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.1e+04;
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
           1; Conservative 0; Mismatches
  Matches
           11 D 11
Qу
            4 D 4
Db
RESULT 57
RR2_CONAM
    RR2 CONAM
                                   PRT;
                                           11 AA.
                    STANDARD;
     P42341;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DΕ
     Chloroplast 30S ribosomal protein S2 (Fragment).
GN
     RPS2.
OS
     Conopholis americana (Squawroot).
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Lamiales; Orobanchaceae; Orobancheae; Conopholis.
OC
OX
     NCBI TaxID=4179;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=92145776; PubMed=1723664;
RX
     Taylor G., Wolfe K.H., Morden C.W., Depamphilis C.W., Palmer J.D.;
RA
     "Lack of a functional plastid tRNA(Cys) gene is associated with loss
RT
     of photosynthesis in a lineage of parasitic plants.";
RT
RL
     Curr. Genet. 20:515-518(1991).
     -!- SIMILARITY: Belongs to the S2P family of ribosomal proteins.
CC
CC
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CC
     between the Swiss Institute of Bioinformatics and the EMBL outstation -
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     the European Bioinformatics Institute. There are no restrictions on its
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     or send an email to license@isb-sib.ch).
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```
EMBL; X64567; CAA45868.1; -.
DR
    PIR; S32575; S32575.
DR
    HAMAP; MF 00291; -; 1.
DR
DR
    InterPro; IPR001865; Ribosomal S2.
    PROSITE; PS00962; RIBOSOMAL S2 1; PARTIAL.
DR
    PROSITE; PS00963; RIBOSOMAL S2 2; PARTIAL.
DR
    Ribosomal protein; Chloroplast.
ΚW
    NON TER
                 11
                        11
FT
    SEQUENCE
               11 AA; 1497 MW; 76CD719954536B44 CRC64;
SQ
                          9.1%; Score 1; DB 1; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 9.1e+04;
                                                0; Indels
                                                               0; Gaps
                                                                           0;
                             0; Mismatches
 Matches
            1; Conservative
           4 E 4
Qу
             1
          11 E 11
Db
RESULT 58
RRPL CHAV
                                  PRT:
    RRPL CHAV
                                          11 AA.
                   STANDARD;
AC
     P13179;
     01-JAN-1990 (Rel. 13, Created)
DT
     01-JAN-1990 (Rel. 13, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     RNA polymerase beta subunit (EC 2.7.7.48) (Large structural protein)
DE
DE
     (L protein) (Fragment).
GN
     L.
     Chandipura virus (strain I653514).
OS
     Viruses; ssRNA negative-strand viruses; Mononegavirales;
OC
OC
     Rhabdoviridae; Vesiculovirus.
     NCBI_TaxID=11273;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RΡ
     MEDLINE=89299473; PubMed=2741347;
RX
     Masters P.S., Bhella R.S., Butcher M., Patel B., Ghosh H.P.,
RA
     Banerjee A.K.;
RA
     "Structure and expression of the glycoprotein gene of Chandipura
RT
RT
     virus.";
     Virology 171:285-290(1989).
RL
     -!- FUNCTION: THIS PROTEIN IS PROBABLY A COMPONENT OF THE ACTIVE
CC
         POLYMERASE. IT MAY FUNCTION IN RNA SYNTHESIS, CAPPING, AS WELL AS
CC
         METHYLATION OF CAPS, AND POLY(A) SYNTHESIS.
CC
     -!- CATALYTIC ACTIVITY: N nucleoside triphosphate = N diphosphate +
CC
CC
         {RNA}(N).
     -!- SUBUNIT: THOUGHT TO FORM A TRANSCRIPTION COMPLEX WITH THE
CC
         NUCLEOCAPSID (N) PROTEIN.
CC
     -!- SIMILARITY: WITH THE L PROTEIN OF OTHER RHABDOVIRUSES AND
CC
         PARAMYXOVIRUSES.
CC
     _____
CC
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CC
     between the Swiss Institute of Bioinformatics and the EMBL outstation -
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     the European Bioinformatics Institute. There are no restrictions on its
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or send an email to license@isb-sib.ch).
CC
    _____
CC
    EMBL; J04350; AAA42917.1; -.
DR
    Transferase; RNA-directed RNA polymerase.
KW
    NON TER
                 11
                        11
FT
               11 AA; 1189 MW; 0335D6E3AAB2D764 CRC64;
    SEQUENCE
SQ
                          9.1%; Score 1; DB 1; Length 11;
 Query Match
                         100.0%; Pred. No. 9.1e+04;
 Best Local Similarity
           1; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
          11 D 11
Qγ
           2 D 2
RESULT 59
RS30 ONCMY
                                  PRT: 11 AA.
    RS30 ONCMY
                   STANDARD;
ID
    P83328;
AC
    28-FEB-2003 (Rel. 41, Created)
DT
    28-FEB-2003 (Rel. 41, Last sequence update) 10-OCT-2003 (Rel. 42, Last annotation update)
DT
DT
     40S ribosomal protein S30 (Fragment).
DE
GN
    FAU.
    Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
    Actinopterygii; Neopterygii; Teleostei; Euteleostei;
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
    NCBI TaxID=8022;
OX
RN
     [1]
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin mucus;
RC
    MEDLINE=22142142; PubMed=12147245;
RX
     Fernandes J.M.O., Smith V.J.;
RA
     "A novel antimicrobial function for a ribosomal peptide from rainbow
RT
     trout skin.";
RT
     Biochem. Biophys. Res. Commun. 296:167-171(2002).
RL
     -!- FUNCTION: Has antibacterial activity against Gram-positive
CC
CC
        bacteria.
     -!- MASS SPECTROMETRY: MW=6676.6; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the S30E family of ribosomal proteins.
CC
     Ribosomal protein; Antibiotic.
KW
FT
     NON TER
                 11
                        11
     SEQUENCE 11 AA; 1123 MW; 2312AB630DD735B8 CRC64;
SO
                          9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.1e+04;
                                                                           0;
          1; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
  Matches
            2 K 2
Qу
             1
Dh
            1 K 1
```

RESULT 60 T2P1 PROVU

```
P310\overline{3}1;
AC
    01-JUL-1993 (Rel. 26, Created)
DT
    01-JUL-1993 (Rel. 26, Last sequence update)
DT
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
    Type II restriction enzyme PvuI (EC 3.1.21.4) (Endonuclease PvuI)
DE
    (R.PvuI) (Fragment).
DE
GN
    PVUIR.
OS
    Proteus vulgaris.
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
    Enterobacteriaceae; Proteus.
OC
OX
    NCBI TaxID=585;
                                                          ì
RN
    [1]
    SEQUENCE FROM N.A.
RP
    STRAIN=ATCC 13315;
RC
RX
    MEDLINE=93087186; PubMed=1454536;
    Smith M.D., Longo M., Gerard G.F., Chatterjee D.K.;
RA
    "Cloning and characterization of genes for the PvuI restriction and
RT
    modification system.";
RT
    Nucleic Acids Res. 20:5743-5747(1992).
RL
    -!- FUNCTION: RECOGNIZES THE DOUBLE-STRANDED SEQUENCE CGATCG AND
CC
CC
        CLEAVES AFTER T-4.
    -!- CATALYTIC ACTIVITY: Endonucleolytic cleavage of DNA to give
CC
        specific double-stranded fragments with terminal 5'-phosphates.
CC
    _____
CC
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CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    or send an email to license@isb-sib.ch).
    _____
CC
DR
    EMBL; L04163; AAA25660.1; -.
DR
    PIR; S35490; S35490.
    REBASE; 1541; PvuI.
DR
KW
    Restriction system; Hydrolase; Nuclease; Endonuclease.
FT
    NON TER
                 1
                        1
SQ
    SEQUENCE
               11 AA; 1300 MW; 9F0CDE7955B72B1A CRC64;
 Query Match
                         9.1%; Score 1; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 9.1e+04;
           1; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
                                                                         0;
           4 E 4
Qу
Db
           5 E 5
RESULT 61
TIN1 HOPTI
    TIN1 HOPTI
                  STANDARD;
                                 PRT;
                                        11 AA.
ID
    P82651:
AC
DT
    16-OCT-2001 (Rel. 40, Created)
DT
    16-OCT-2001 (Rel. 40, Last sequence update)
DT
    15-MAR-2004 (Rel. 43, Last annotation update)
DE
    Tigerinin-1.
```

PRT:

11 AA.

T2P1 PROVU

STANDARD:

ID

```
Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
     TISSUE=Skin secretion;
RC
     PubMed=11031261;
RX
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
RT
     tigerina.";
     J. Biol. Chem. 276:2701-2707(2001).
RL
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- MASS SPECTROMETRY: MW=1342; METHOD=MALDI.
CC
     Amphibian defense peptide; Antibiotic; Fungicide; Amidation.
KW
     DISULFID
                   2
                         10
FT
     MOD RES
                  11
                                  AMIDATION.
                         11
FT
                11 AA; 1344 MW; A2087DC960476056 CRC64;
     SEOUENCE
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
            1; Conservative
            6 P 6
Qу
            6 P 6
Db
RESULT 62
TIN4 HOPTI
     TIN4 HOPTI
                                   PRT;
                                            11 AA.
                    STANDARD;
     P82654;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Tigerinin-4.
DE
OS
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
     TISSUE=Skin secretion;
RC
RX
     PubMed=11031261;
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
RA
     Devi A.S., Nagaraj R., Sitaram N.;
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
RT
     tigerina.";
RL
     J. Biol. Chem. 276:2701-2707(2001).
CC
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
```

```
-!- TISSUE SPECIFICITY: Skin.
CC
    -!- MASS SPECTROMETRY: MW=1247; METHOD=MALDI.
CC
    Amphibian defense peptide; Antibiotic.
KW
    DISULFID
                  3
                        11
FT
               11 AA; 1248 MW; 117D8EFD37605DCB CRC64;
    SEQUENCE
SQ
                          9.1%; Score 1; DB 1; Length 11;
 Query Match
                         100.0%; Pred. No. 9.1e+04;
 Best Local Similarity
                              0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            1; Conservative
 Matches
           1 A 1
Qу
            5 A 5
Db
RESULT 63
TKC2 CALVO
                                   PRT;
    TKC2 CALVO
                    STANDARD;
                                           11 AA.
     P41518:
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Callitachvkinin II.
DE
    Calliphora vomitoria (Blue blowfly).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Calliphoridae; Calliphora.
OC
    NCBI TaxID=27454;
OX
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RP
    MEDLINE=95075727; PubMed=7984492;
RX
     Lundquist C.T., Clottens F.L., Holman G.M., Nichols R., Nachman R.J.,
RA
    Naessel D.R.;
RA
     "Callitachykinin I and II, two novel myotropic peptides isolated from
RT
     the blowfly, Calliphora vomitoria, that have resemblances to
RT
     tachykinins.";
RT
     Peptides 15:761-768(1994).
RL
     -!- FUNCTION: Myoactive peptide.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
     Tachykinin; Neuropeptide; Amidation.
KW
FT
     MOD RES
                 11
                        11
                                 AMIDATION.
                11 AA; 1103 MW; 15D7E3F9C9CDD444 CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.1e+04;
                                                                 0; Gaps
                                                                             0;
                                0; Mismatches
                                                   0; Indels
  Matches
           1; Conservative
            7 N 7
Qу
            4 N 4
Db
RESULT 64
TKN1 PSEGU
     TKN1 PSEGU
                    STANDARD; PRT;
                                           11 AA.
ID
```

-!- SUBCELLULAR LOCATION: Secreted.

CC

```
АC
     P42986;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Kassinin-like peptide K-I (PG-KI).
DΕ
     Pseudophryne quentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
    Myobatrachinae; Pseudophryne.
OC
     NCBI TaxID=30349;
OX
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Skin secretion;
RC
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; B60409; B60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                   1
FT
                          1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1269 MW;
                                  3DBA7C37C9CB1AB7 CRC64;
SQ
                                  Score 1; DB 1; Length 11;
                           9.1%;
  Query Match
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                              0;
                                 0; Mismatches
                                                  0; Indels
                                                               0; Gaps
  Matches
             1; Conservative
            6 P 6
Qy
            2 P 2
Db
RESULT 65
TKN2 UPERU
     TKN2 UPERU
                                    PRT:
                                            11 AA.
                    STANDARD;
ID
     P08616;
АC
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Rugosauperolein II ([Lys5,Thr6]physalaemin).
DE
     Uperoleia rugosa (Wrinkled toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
```

```
Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OC
     NCBI TaxID=8368;
OX
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Skin secretion;
RC
     MEDLINE=80223080; PubMed=7389029;
RX
     Nakajima T., Yasuhara T., Erspamer V., Erspamer G.F., Negri L.;
RA
     "Physalaemin- and bombesin-like peptides in the skin of the
RT
     Australian leptodactylid frog Uperoleia rugosa.";
RT
     Chem. Pharm. Bull. 28:689-695(1980).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                         11
                                  AMIDATION.
FT
     MOD RES
                  11
                11 AA; 1270 MW;
                                  3293693E59D1A327 CRC64;
     SEQUENCE
SQ
                                  Score 1; DB 1; Length 11;
  Query Match
                           9.1%;
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                      Gaps
                                                                               0;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
            1 A 1
Qу
              1
            2 A 2
Dh
RESULT 66
TKNA CHICK
     TKNA CHICK
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P19850;
AC
     01-FEB-1991 (Rel. 17, Created)
DT
     01-FEB-1991 (Rel. 17, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DE
     Gallus gallus (Chicken).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
OC
     Gallus.
     NCBI_TaxID=9031;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Intestine;
     MEDLINE=88204263; PubMed=2452461;
RX
     Conlon J.M., Katsoulis S., Schmidt W.E., Thim L.;
RA
     "[Arg3] substance P and neurokinin A from chicken small intestine.";
RT
RL
     Regul. Pept. 20:171-180(1988).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
```

```
evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; JN0023; JN0023.
DR
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                  AMIDATION.
     MOD RES
                  11
                         11
FT
                11 AA; 1377 MW; 21487FE3C9D6C6C7 CRC64;
     SEOUENCE
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                               0:
                                                                   0; Gaps
                                                        Indels
                                  0; Mismatches
            1; Conservative
            6 P 6
Qy
Db
            2 P 2
RESULT 67
TKN ELEMO
                                    PRT;
                                            11 AA.
                    STANDARD;
ID
     TKN ELEMO
AC
     P01293;
     21-JUL-1986 (Rel. 01, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
\mathbf{DT}
DE
     Eledoisin.
     Eledone moschata (Musky octopus) (Ozaena moschata), and
OS
     Eledone cirrhosa (Curled octopus) (Ozaena cirrosa).
OS
     Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC
     Octopodiformes; Octopoda; Incirrata; Octopodidae; Eledone.
OC
     NCBI TaxID=6641, 102876;
OX
RN
     [1]
     SEQUENCE.
RP
     Anastasi A., Erspamer V.;
RA
     "The isolation and amino acid sequence of eledoisin, the active
RT
     endecapeptide of the posterior salivary glands of Eledone.";
RT
     Arch. Biochem. Biophys. 101:56-65(1963).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
          evoke behavioral responses, are potent vasodilators and
CC
          secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; A01561; EOOC.
DR
     PIR; B01561; EOOCC.
DR
     PDB; 1MXQ; 18-FEB-03.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
      PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Pyrrolidone carboxylic acid;
KW
      3D-structure.
 KW
                                   PYRROLIDONE CARBOXYLIC ACID.
                           1
                    1
     MOD RES
 FT
                                   AMIDATION.
                          11
                   11
      MOD RES
 FT
```

```
SQ
     SEQUENCE
                11 AA; 1206 MW; 570D7C2559CDDAA3 CRC64;
  Query Match
                            9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.1e+04;
             1; Conservative
                                 0; Mismatches
                                                       Indels
                                                                       Gaps
                                                                               0;
            6 P 6
Qу
            2 P 2
Db
RESULT 68
UF05 MOUSE
     UF05 MOUSE
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P38643;
AC
DT
     01-OCT-1994 (Rel. 30, Created)
     01-OCT-1994 (Rel. 30, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Unknown protein from 2D-page of fibroblasts (P48) (Fragment).
OS
     Mus musculus (Mouse).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX
     NCBI TaxID=10090;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Fibroblast;
RX
     MEDLINE=95009907; PubMed=7523108;
     Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RA
RT
     "Separation and sequencing of familiar and novel murine proteins
RT
     using preparative two-dimensional gel electrophoresis.";
     Electrophoresis 15:735-745(1994).
RL
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 5.5, its MW is: 48 kDa.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA;
                        1328 MW;
                                  E54835E5CAAABAFA CRC64;
  Query Match
                            9.1%;
                                  Score 1; DB 1;
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.1e+04;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            2 K 2
Qу
Db
            1 K 1
RESULT 69
ULAG HUMAN
     ULAG HUMAN
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P31933;
     01-JUL-1993 (Rel. 26, Created)
DT
DT
     01-JUL-1993 (Rel. 26, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DE
     Unknown protein from 2D-page of liver tissue (Spot 118) (Fragment).
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
```

```
RN
     [1]
     SEQUENCE.
RP
    TISSUE=Liver;
RC
    MEDLINE=94147969; PubMed=8313870;
RX
    Hughes G.J., Frutiger S., Paquet N., Pasquali C., Sanchez J.-C.,
RA
     Tissot J.-D., Bairoch A., Appel R.D., Hochstrasser D.F.;
RA
     "Human liver protein map: update 1993.";
RT
     Electrophoresis 14:1216-1222(1993).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 5.5, its MW is: 34 kDa.
CC
     SWISS-2DPAGE; P31933; HUMAN.
DR
     Siena-2DPAGE; P31933; -.
DR
FT
     NON TER
                  11
                         11
                                  EDABD37F272DDB0A CRC64;
                11 AA; 1219 MW;
SO
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                0; Mismatches
                                                                  0; Gaps
                                                                               0;
                                                       Indels
                                                    0;
             1; Conservative
            4 E 4
Qу
Db
            5 E 5
RESULT 70
UXB2 YEAST
                                            11 AA.
     UXB2 YEAST
                    STANDARD;
                                    PRT;
ID
     P99013;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page (Spot 2D-000K2F) (Fragment).
DΕ
     Saccharomyces cerevisiae (Baker's yeast).
os
     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OC
     NCBI TaxID=4932;
OX
RN
     [1]
     SEQUENCE.
RΡ
RC
     STRAIN=X2180-1A;
     Sanchez J.-C., Golaz O., Schaller D., Morch F., Frutiger S.,
RA
     Hughes G.J., Appel R.D., Deshusses J., Hochstrasser D.F.;
RA
     Submitted (AUG-1995) to Swiss-Prot.
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 6.20, its MW is: 9.2 kDa.
CC
     SWISS-2DPAGE; P99013; YEAST.
DR
                          11
                  11
FT
     NON TER
                11 AA; 1328 MW;
                                  EC38021C0DCB42DA CRC64;
     SEQUENCE
SO
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.1e+04;
  Best Local Similarity
                                                                               0;
             1; Conservative 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0; Gaps
  Matches
            1 A 1
Qу
            7 A 7
Db
```

Search completed: April $\,$ 8, 2004, 15:47:22 $\,$ Job time : 5.15385 $\,$ secs